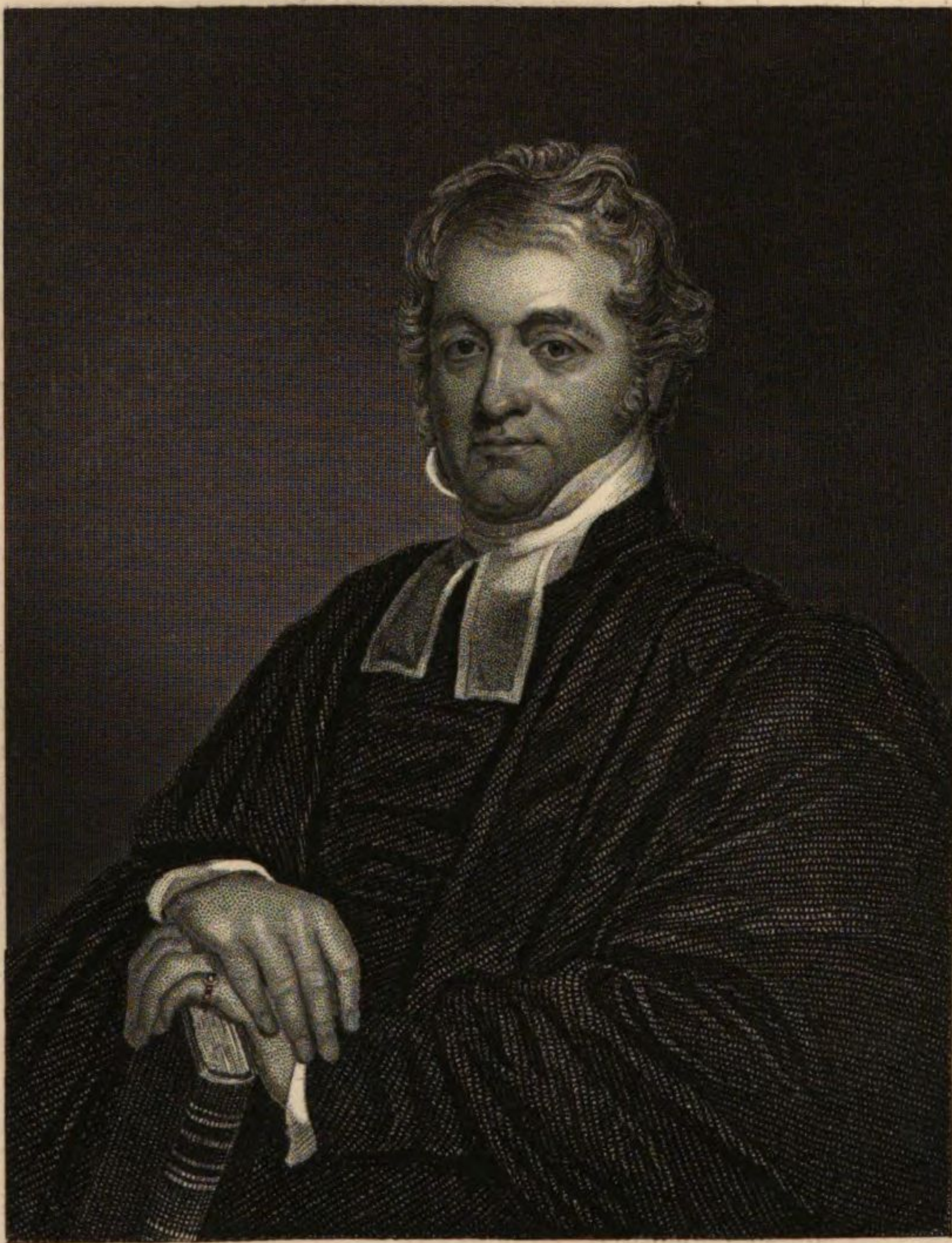




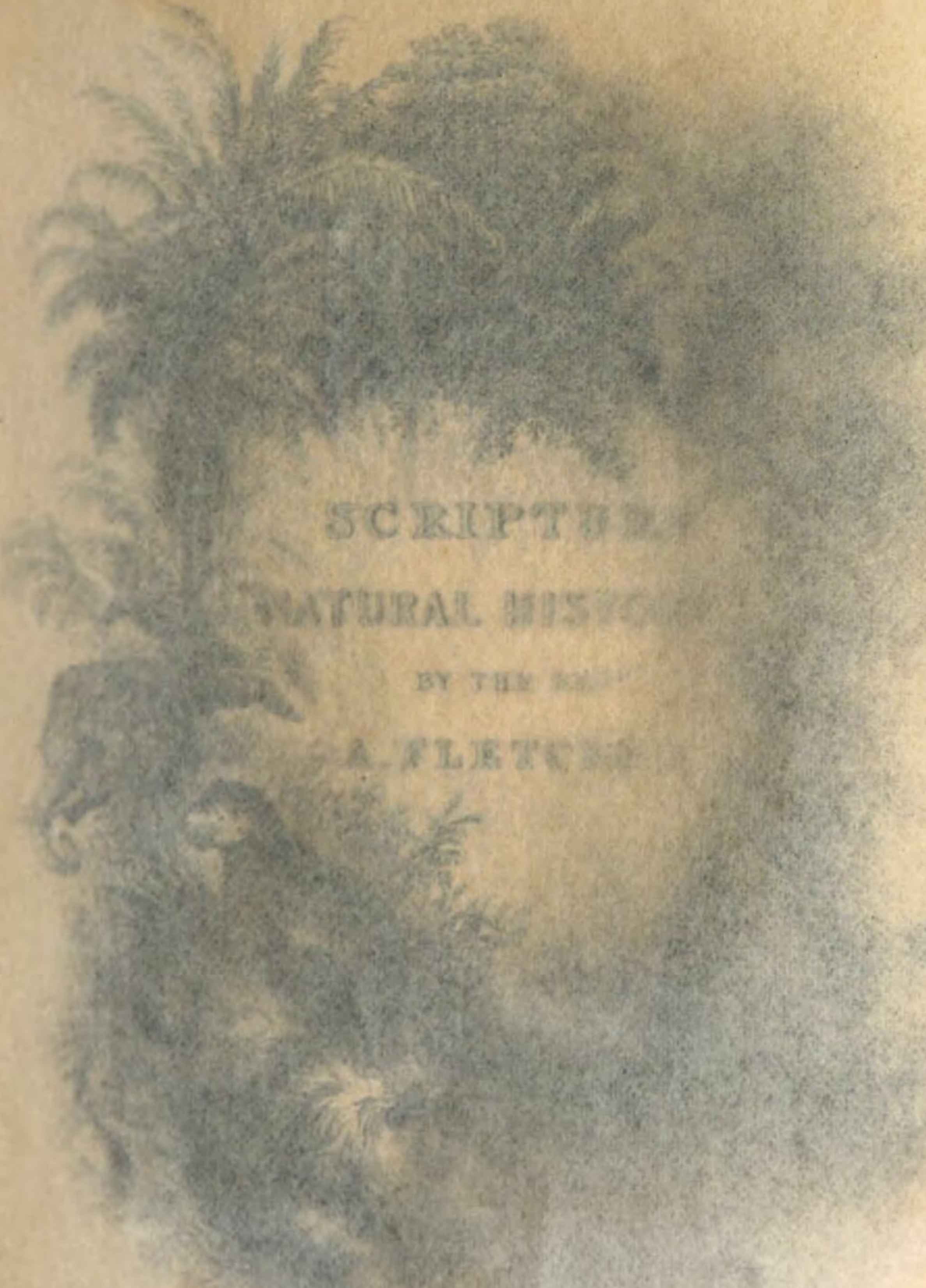
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SCIENTIFIC NATURAL HISTORY



REV^d ALEX^r FLETCHER.



SCRIPTURE

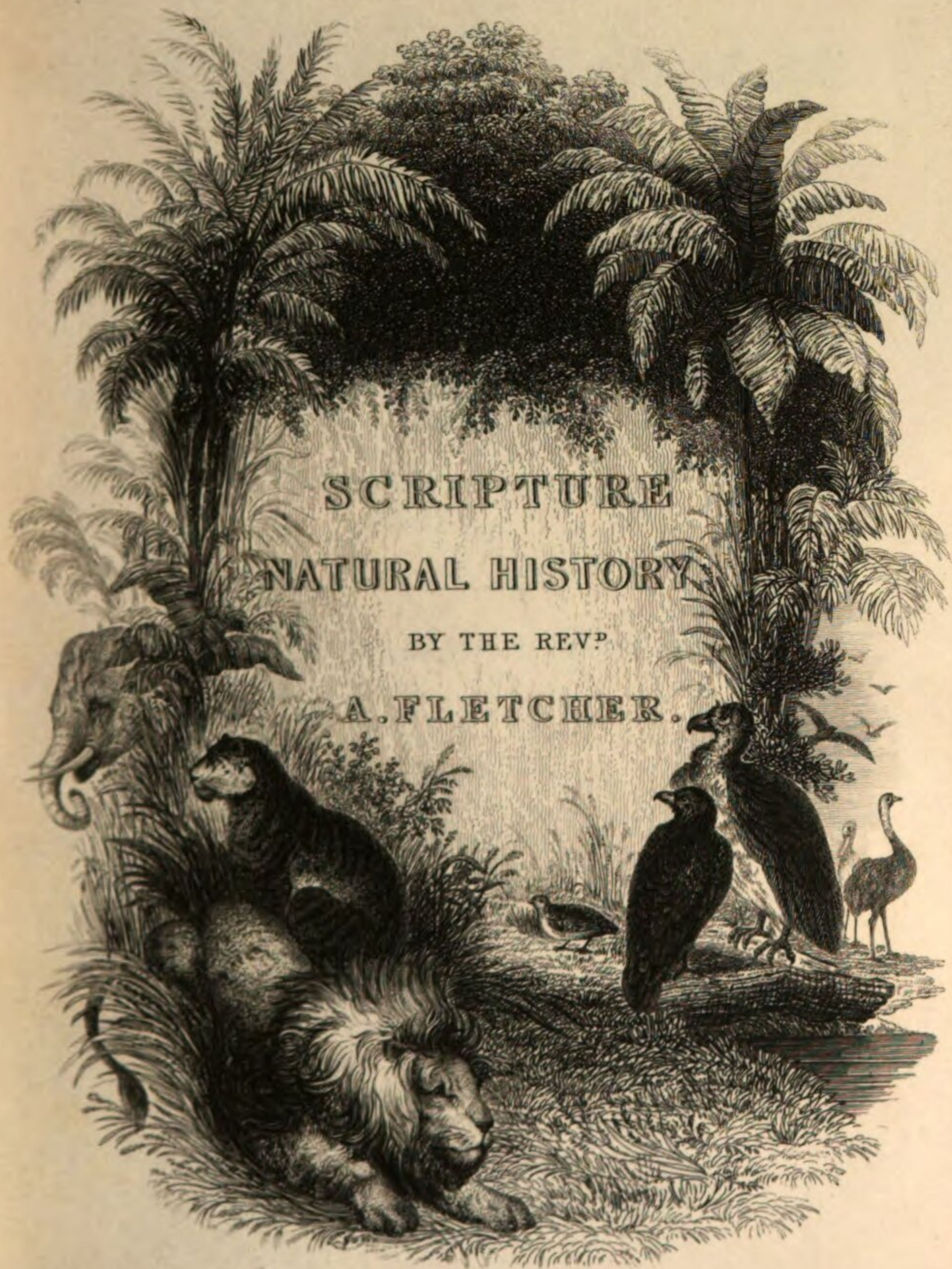
NATURAL HISTORY

BY THE REV.

A. FLETCHER



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SCRIPTURE

NATURAL HISTORY

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LONDON, GEORGE VIRTUE.

SCRIPTURE NATURAL HISTORY.

BY THE

REV. ALEXANDER FLETCHER.

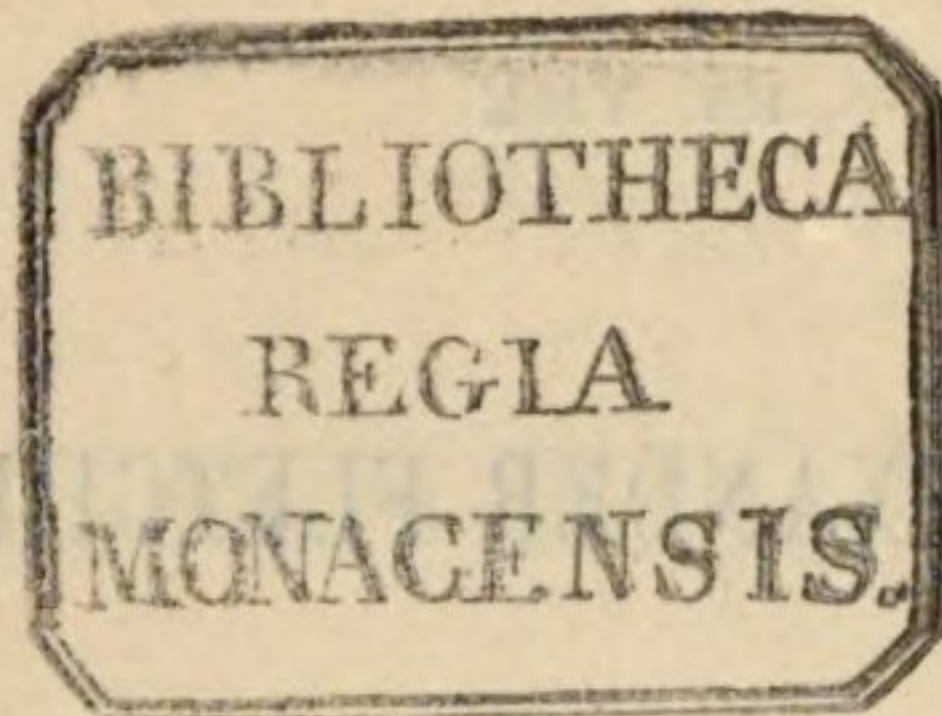
CONTAINING ABOUT TWO HUNDRED AND FORTY DIFFERENT
SUBJECTS.

Illustrated by splendid Engravings.

"Praise the Lord from the earth, ye dragons, and all deeps, beasts, and all cattle,
creeping things, and flying fowl"—PSALM CXLVIII.

VOL. I.

LONDON:—GEORGE VIRTUE.



LONDON:

JOSEPH RICKERBY, PRINTER,

SHERBOURN LANE.

INTRODUCTION.

THERE is a remarkable and close connexion betwixt the Sacred Scriptures and the various departments of science. A careful perusal of the Word of God will furnish innumerable illustrations of this fact. Astronomy, geology, mineralogy, and natural history, including the animal and vegetable kingdoms, present a rich collection of materials employed by the Spirit of God in the exhibition of divine truth. This shows the great value of scientific information, its intimate connexion with theology, and the infinite importance of contemplating the glories of the divine attributes, through the medium of the divine works. Strictly speaking, what is science? It is the knowledge of God's works. It is to be feared, multitudes study and admire the works of God, who refuse to see and admire God in his works. Infatuated state of mind and heart, to admire the *architecture* of the visible universe, and not admire the infinitely wise, and mighty, and benevolent ARCHITECT, whose being and perfection shine in the different departments of his works with brightness, even greater than the splendour of the sun at noonday!

Science is the handmaid of religion, and a most efficient auxiliary in studying the will of God, and the sublime and animating doctrines of the glorious gospel.

The Bible exhibits an astonishing mass of information connected with natural history, which forms the subject of this volume. Among the most celebrated of pagan philosophers, natural history formed a very favourite part of their study and research, from the earliest periods of human history. Socrates, Aristotle, and Pliny, are names to be found among the illustrious collection.

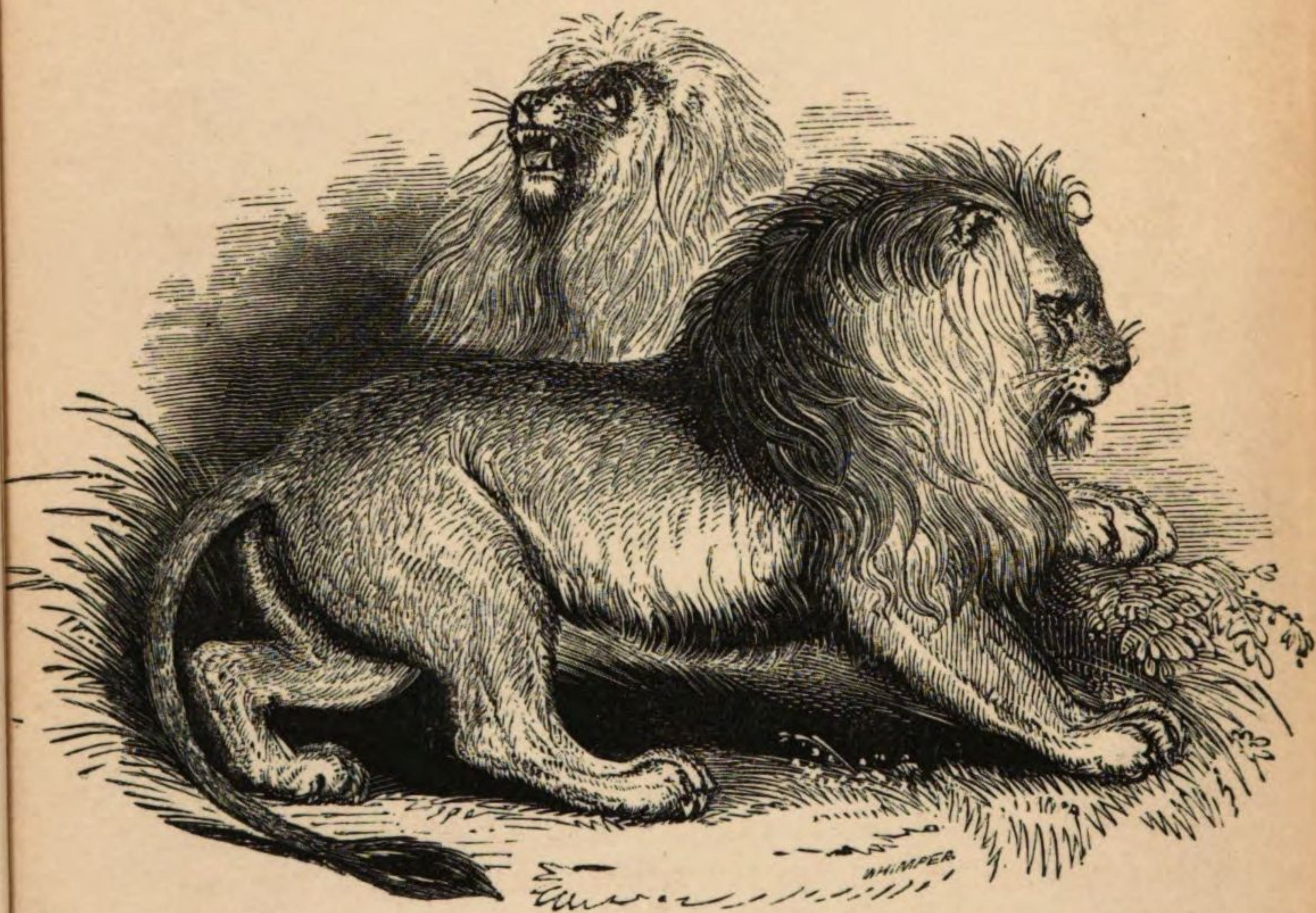
The design of this production is, by the most plain and familiar illustration, to lead the YOUNG, more especially, to employ the different departments of science as a glorious mirror of divine workmanship, to behold the bright reflexion of the divine perfections. Times without number this magnificent mirror is held up before the eyes of our mind in the inspired volume, that we may see, know, admire, and love that glorious Jehovah, whose voice is heard in the thunder, whose power is felt in the earthquake, whose wisdom and benevolence shine in the countless dewdrops of the morning, and in the continued increasing influence of the bright luminary of day.

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THE LION

SCRIPTURE NATURAL HISTORY.

THE LION.

יָרֵא, ARI. *Light.*

PROV. XXX. 30.—“ *A lion, which is strongest among beasts.*”

FREQUENT mention is made of the lion in the Holy Scriptures. The noblest figures and the most striking illustrations are suggested by his strength, agility, and boldness, and presented before us in language the most poetical, impressive, and sublime. Thus it is said of Judah, (Gen. xlix. 9,) “Judah is a lion’s whelp; from the prey, my son, thou art gone up: he stooped down, he couched as a lion, and as an old lion, who shall rouse him up?”

For his courage, strength, and awfully commanding appearance, he is called the king of beasts. All descriptions of the brutal tribes acknowledge his supremacy, while he fills with terror the tiger, the rhinoceros, and the elephant.

He is longer than the mastiff, his head is particularly large, his eyes are peculiarly vivid and bright, his legs are thick and muscular. With one blow of his paw he can lay his victim prostrate in the dust. His claws are long, thick, and sharp, which he can dart

forth as from a sheath, and instantly secure his prey. He is of a yellow tawnyish colour, and his neck is decorated by a large flowing mane, which he has the power of erecting when he pleases. Indeed, the lion is clothed with terrific grandeur, which cannot even be described by the flowing diction of the most poetical expression. Lions of the largest size are betwixt eight and nine feet in length, and from four to four and a half feet in height. The lioness has no mane, and in size is about a fourth part less.

The lion is a native of Africa, and of the hottest parts of Asia. The roaring of the lion is dreadful, and during the stillness of night it resembles the distant thunder. The wrath of an offended God is described in Scripture by the roaring of the lion; (Amos i. 2;) "The Lord will roar from Zion, and utter his voice from Jerusalem; and the habitations of the shepherds shall mourn, and the top of Carmel shall wither."

Lions have some striking and noble characteristics. Their kindness to their young ones is proverbial. They readily spare those who submit to their mercy; they are very mindful of favours, and are grateful to those who treat them with kindness. It is said that they never fall upon a victim, except when impelled by hunger. How different from the tiger, which lacerates and destroys, from its innate delight in cruelty and blood!

The use which the inspired writers make of the lion is calculated to impress our minds with awe. God

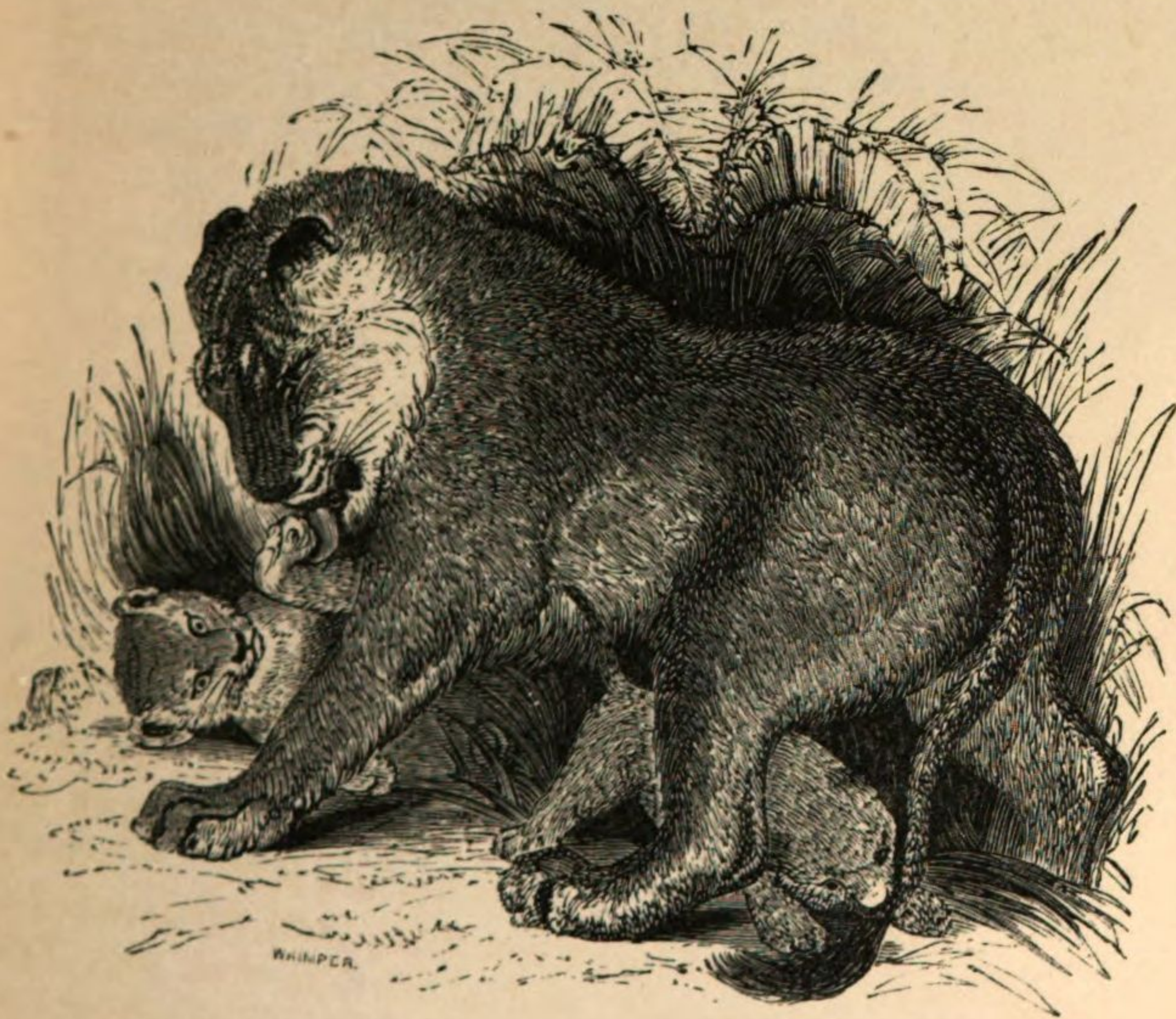
in his judgments is compared to a lion, and therefore terrible to his enemies. (Amos, iii. 8.) "The lion hath roared, who will not fear? the Lord God hath spoken, who can but prophesy?" Because Christ is terrible to his impenitent enemies, and in his humanity the most mighty of all the royal Jewish tribe, he is called, "the Lion of the tribe of Judah." (Rev. v. 5.) "One of the elders said, Behold the Lion of the tribe of Judah, the root of David hath prevailed to open the book, and to loose the seven seals thereof." Even the church of God is compared, or likened, to a lion, because she overcomes all her enemies, and is terrible to such as continue her implacable foes. (Micah, v. 8.) "And the remnant of Jacob shall be among the Gentiles in the midst of many people, as a lion among the beasts of the forest, as a young lion among the flocks of sheep; who, if he go through, both treadeth down and teareth in pieces, and none can deliver." Believers in their spiritual courage are compared to the lion. (Prov. xxviii. 1.) "The wicked flee when no man pursueth, but the righteous are bold as a lion." The devil, on account of his fierceness, his hatred of the saints, and the miseries he brings on the human race by his spiritual ravages, is thus described, (1 Pet. v. 8,) "As a roaring lion, seeking whom he may destroy." Men, on account of their cruel passions and delight in war, are called lions; but it is foretold, their natures shall be changed and mollified by the influence of the gospel applied by the power of the Spirit. (Isaiah,

xi. 6, 7.) "The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid, and the *young lion* and the fatling together, and a little child shall lead them. And the cow and the bear shall feed, and their young ones shall lie down together, and the *lion* shall eat straw like the ox. For the earth shall be full of the knowledge of the Lord as the waters cover the sea."

LIONESSE.

EZEKIEL, XIX. 2. "*What is thy mother? A lioness.*"

THE lioness differs much from the lion in this respect, she has no mane, and her neck and breast are much smoother than his. Her nose is longer, the head more flatted in the upper part, and the claws are much smaller than those of the male lion. When full grown she is about three feet high, from the fore feet to the ridge of the back, and about five feet long, from the nose to the insertion of the tail. The lioness goes with young rather more than three months and a half. The litter usually consists of three or four. They are playful and harmless; and are without the mane and the tuft at the end of the tail, till they are upwards of three years of age. They feed upon their mother's



THE LIONESS AND CUBS.

milk about twelve months, and are upwards of five years in arriving at maturity. Though the female is weaker and more timid than the male, yet she is much more ferocious in the defence of her young: she makes her incursions with greater boldness, destroying every animal that falls in her way, and carrying the victim reeking to her offspring. When attacked in defence of her progeny, she seems insensible to her own wounds, and seldom fails either to save them or perish in the conflict.

The prophet Ezekiel delivers a very poetical lamentation respecting the calamities which befel the princes of Israel, under a parable of the lioness and her whelps taken in a pit. (Chap. xix. 2.) "What is thy mother? A lioness: she lay down among lions, she nourished her whelps among young lions. And she brought up one of her whelps;" that is, one of the princes: "it became a young lion, and it learned to catch the prey; it devoured men. The nations also heard of him; he was taken in their pit, and they brought him with chains to the land of Egypt."

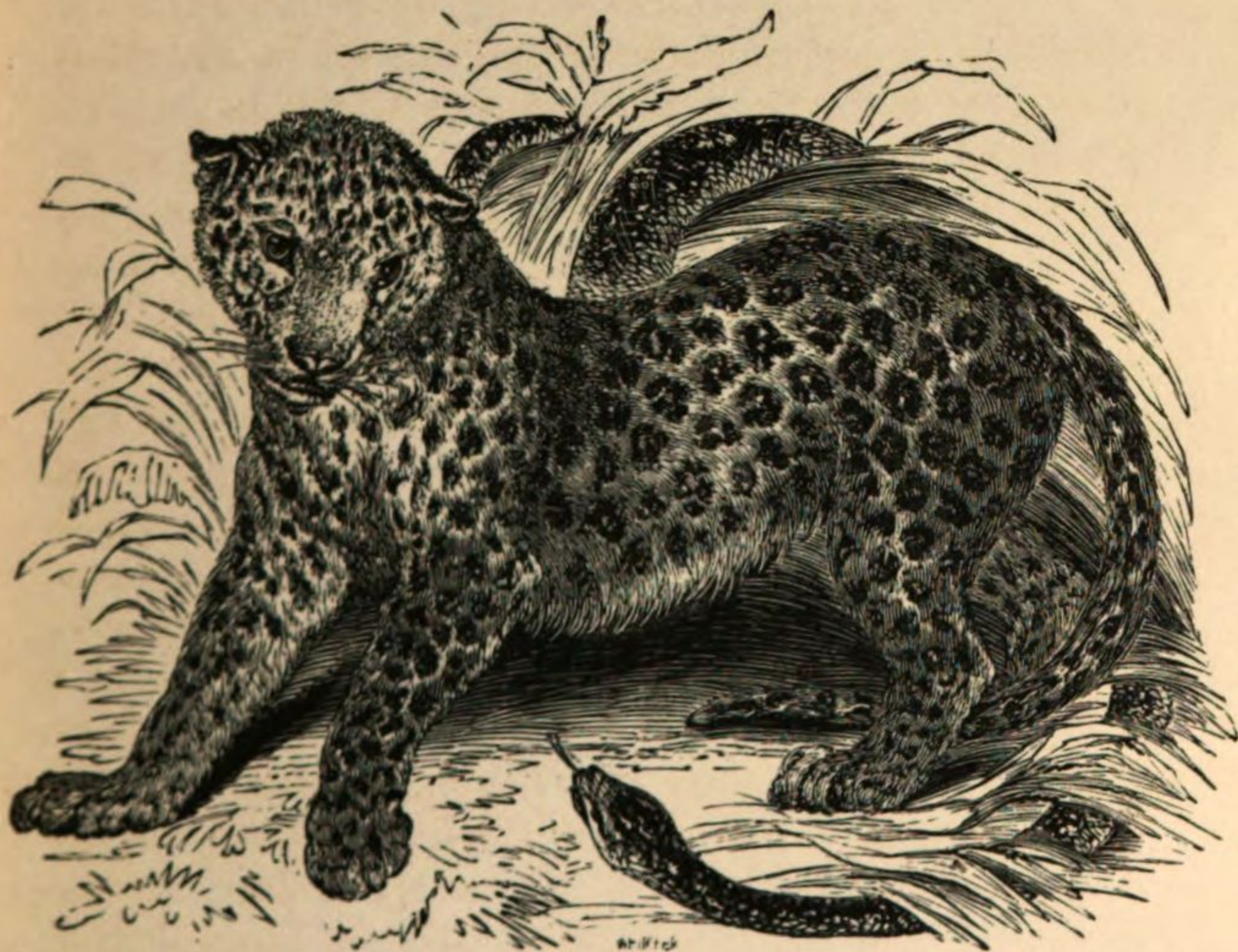
THE LEOPARD.

נמר, NMR. *Variegated spots.*

ISAIAH, XI. 6.—“*The leopard shall lie down with the kid.*”

THE first mention made of the leopard in the Holy Scriptures is in Song iv. 8., where Christ is thus represented as addressing the church, in language of ardent affection; “Come with me from Lebanon, my spouse, with me from Lebanon: look from the top of Amana, from the top of Shenir and Hermon, from the lions’ dens, from the mountains of leopards.”

Nimrah is the Hebrew name of the leopard, and signifies spotted. It is chiefly found in Senegal in Africa. The upper part is beautifully spotted, the lower is streaked. What a difference betwixt its outward beautiful appearance and its inward ferocious dispositions! It is smaller than the tiger. There is great liveliness in its eyes, which are continually in motion. The feet are large; the fore ones having five toes, and the hind but four. It can draw back and push out its dreadful claws at pleasure. It has the power of opening and closing the toes of its feet like the human hand, and thus becomes dreadfully formidable to the creatures which it attacks. It is peculiarly fierce and savage; all animals, not even man excepted, it attacks indiscriminately, and it is rarely capable of being tamed. It watches long and patiently for its prey, and will spring or leap upon them from a considerable distance, so far as seventeen feet.



THE LEOPARD.

In Hosea, xiii. 7, God compares himself to a leopard. "Therefore I will be unto them as a lion : as a leopard by the way will I observe them." It is in reference to his enemies he resembles a leopard. Let them read and tremble ! He waits with patience for the proper season of vengeance. O, how fierce his indignation, when he breaks forth on those who have trampled upon his authority and despised his grace ! Wicked men are compared to leopards. In heart and life, they are spotted with corruption, which, like the spots upon the leopard's skin, no human power can wash out. Wicked men too, like leopards, are fierce, and no power short of divine can tame them. Thus speaks the prophet : (Jer. xiii. 23 :) "Can the Ethiopian change his skin or the leopard his spots ? then may ye also do good, who are accustomed to do evil." Because of their craft, cruelty, and ferocious rage ; because they besieged the cities of Judah, and destroyed their inhabitants, nebuchadnezzar and his army are compared to leopards. Doubtless they were in view when the prophet said, (Jer. v. 6,) "Wherefore a lion out of the forest shall slay them, and a wolf of the evening shall spoil them, a leopard shall watch over their cities." The Grecian empire in all its military greatness, with Alexander at its head, is compared to a leopard with four wings and four heads : (Dan. vii. 6 :) "After this, I beheld, and lo, another, like a leopard, which had upon the back of it four wings of a fowl ; the beast had also four heads ; and dominion was given

to it." We see abundant reason for this figure, when we remember how much Alexander was spotted with vices, and that in many of his battles he came suddenly upon the enemy, who almost before they were aware, found themselves his victims.

Tempters of old or young resemble leopards. They patiently wait for the most favourable opportunities, and, alas, how successful they are, in many instances, in destroying their victims! To the young I would say especially, "Watch and pray!"

ZEBRA, OR WILD ASS.

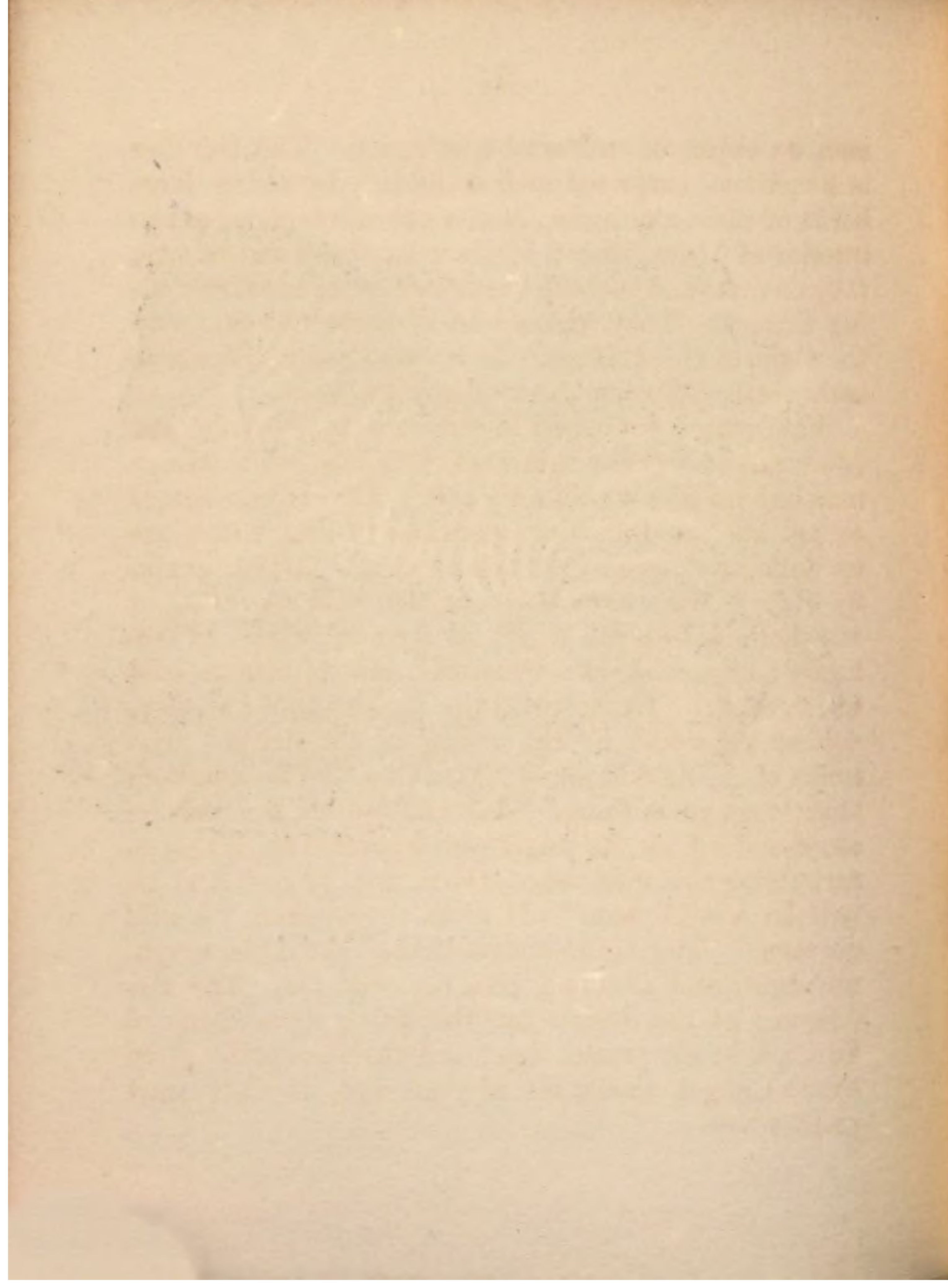
נָפַד, PARA. *Breaking loose from restraint.*

JOB, XXXIX. 5.—"Who hath sent out the wild ass free."

WE do not positively affirm that the zebra is the *wild ass* mentioned in scripture; but the probability is great. What is said of the wild ass in that sacred book most exactly agrees with the description which naturalists and travellers give of that animal. In size, it rather exceeds the tame ass. Its head and ears are elegantly shaped. The ground-colour of its skin is generally milk or cream white, and adorned with numerous stripes, black or dark brown, disposed with the nicest symmetry over the face, body, and limbs. The beauty and regularity of these stripes render this animal, wherever it is



THE ZEBRA, OR WILD ASS



seen, an object of universal admiration. The traveller is sometimes surprised and delighted, by seeing large herds of them assembling in the extensive plains of the interior of Africa, where, by their liveliness and beauty, they animate and beautify the dreariness of the surrounding scenery. They abound in districts not far from the Cape of Good Hope. It is exceedingly difficult to train them, either for the saddle or the yoke.

Vain man is compared in scripture to the wild ass. (Job, xi. 14.) "For vain man would be wise, though man be born like a wild ass's colt." God is represented as putting the following questions to Job, which are exceedingly descriptive of this creature. (Chap. xxxix. 5—8 :) "Who hath sent out the wild ass free? or who hath loosed the bands of the wild ass? Whose house I have made the wilderness, and the barren land his dwelling. He scorneth the multitude of the city, neither regardeth he the crying of the driver. The range of the mountains is his pasture, and he searcheth after every green thing." Ishmael and his descendants are described by the angel who appeared to Hagar as resembling the *wild ass*: (Gen. xvi. 12 :) "And he will be a wild man." It is in the original, "*a wild ass man*." The figure means that he should be rough, untaught, and libertine, like the wild ass. The Bedowens of the deserts are the living descendants of Ishmael, at the present day; and the description given by the angel, thousands of years ago, is their exact picture now.

We should acknowledge with humility, that we naturally resemble the wild ass, and cannot endure the wholesome restraints and restrictions of the divine law. "Holy Spirit, subdue the wild, restless, and rebellious dispositions of our fallen nature; introduce us mercifully into the school of Christ, that we may learn of him who is meek and lowly of heart!"

THE GIRAFFE; OR, CAMELO-PARDUS.

זמר, ZAMAR. *To prune branches.*

DEUT. XIV. 6.—"*And every beast that parteth the hoof and cheweth the cud, that shall ye eat.*"

THOUGH there is some uncertainty whether this remarkable animal is mentioned in scripture, under some other name, it is likely it is one of those clean beasts named by Moses in Deut. xiv. 5, 6. "The hart, and the roebuck, and the fallow-deer, and the wild goat, and the pygarg, and the wild ox, and the chamois; and every beast that parteth the hoof, and cleaveth the cleft into two claws, and cheweth the cud among the beasts, that ye shall eat." The giraffe is one of the most remarkable of the clean animals, as to form, size, colour, and lofty nobleness of appearance, that therefore it is very unlikely it should not be particularly named by the inspired writer.

As I have seen some living specimens in the Zoologi-



THE GIRAFFE.

cal Gardens of London, I am able to give my testimony to the truth of the following description. It is in height, from the fore feet to the top of the head, from fifteen to sixteen feet. One great peculiarity in this creature is the disproportion between its legs being so great, the fore feet being so long and the hind legs being so short. Still it is a beautiful animal, and illustrative of that wisdom of God, which shines in the universal harmony of all his works. Every creature has its peculiar model, and on that model there can be no improvement, no alteration in its structure, which can add to its beauty. The head of the giraffe is small, resembling that of the stag; the aspect is mild; the eyes are large and animated; the neck is long and tapering; the disposition of the colours is singular and pleasing, while beautiful dark brown spots are scattered over a whitish ground. From the head down to the middle of the back runs a short, stiffish mane. The tail is of moderate length, and terminating in a tuft of long hair. Its hoofs are black and moderately large. The horns are in length only about half a foot. There is between the eyes a bony elevation, covered with hair.

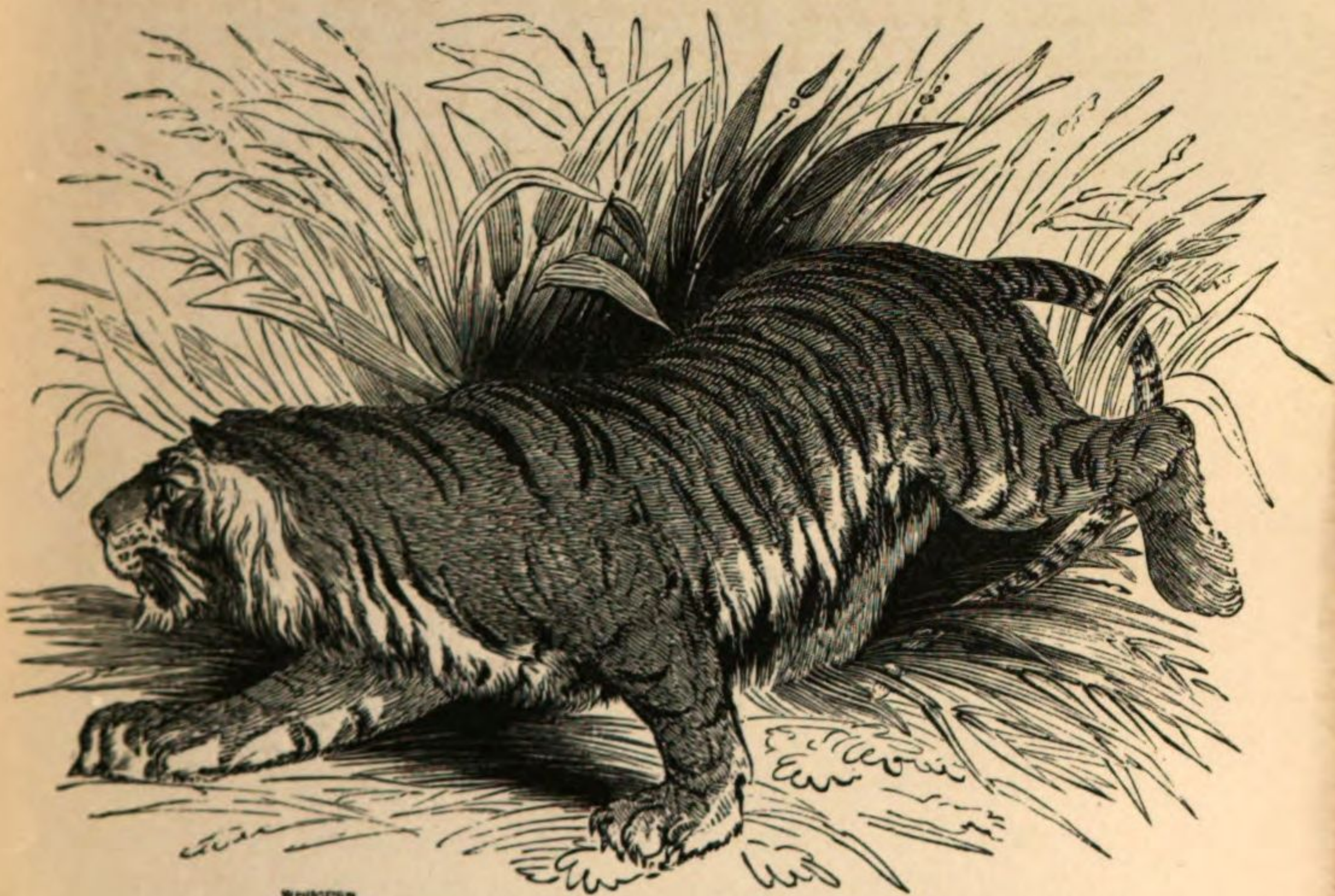
The giraffe is chiefly a native of Ethiopia. The Rev. John Campbell, who travelled in Africa for the objects of the Missionary Society, brought home with him a stuffed giraffe of great size, which has been long exhibited in the museum of that excellent institution. It was taken in the neighbourhood of the Cape of

Good Hope. This species of animals is also found in some parts of Asia. In its disposition it is mild and timid, yet capable of repelling its enemies by severe kicks. It feeds principally on leaves and tender branches. Once I saw a giraffe, in the Zoological Gardens of London, stretching up its head over the lofty pailing of its enclosure, towards the branches of an adjoining tree. It looked most noble and graceful. The ancient Romans were acquainted with the giraffe, and it was first exhibited to them in the Circaean games, by Julius Cæsar. On the Prænestine pavement, its grazing and browsing attitudes are both delineated. The flesh of the young is agreeable food. Their bones are filled with marrow, much prized by the Hottentots, who employ their skins for vessels to contain water. They hunt them for these purposes, and shoot them with poisoned arrows.

THE TIGER.

LEVIT. XXVI. 2.—“*I will also send wild beasts among you.*”

THOUGH the tiger is not mentioned by name in scripture, there can be no doubt that there are many references made to this wild beast, as well as to others, in the



THE TIGER

sacred volume. We will therefore proceed at once to furnish some description of this most voracious, formidable, and destructive animal.

The name *tiger* is of Hebrew, or Armenian, origin, and signifies a dart or arrow, and is given to this wild beast to denote the rapidity with which it bounds or darts upon its prey. This may be considered figurative of the rapidity with which the judgments of God fall upon his rebellious and impenitent enemies. Sometimes the tiger loses his aim, but the justice of God never! This quadruped is of a noble appearance and form. It is in length about nine feet, its height four or five, its tail of the same length, making from the nose to the tip of the tail, fourteen feet. The chief colour of its body is orange yellow. White prevails nearly over the face, throat, and belly; and the whole is traversed or crossed by numerous long black stripes. This animal is a native of India, being found in China, Chinese Tartary, but chiefly in the hot climates of India, and the Indian Islands. It has a preference for hilly and woody districts; and it lurks in jungles and thickets, from which it rushes with dreadful impetuosity, attacking flocks and herds, by no means terrified at the sight of man, and even engaging with the lion in such fierce encounters that the combatants have been found to fall together. Its thirst for blood is extraordinary and appalling. The tiger plunges his head into the body of his victim, and continues to suck the blood until the sources are ex-

hausted. His strength is so prodigious that it is said he can drag along a dead buffalo. The roar of the tiger is tremendous. It is at first deep, slow, and melancholy ; then it becomes more acute, and finishes in a dreadful cry. When robbed of her young, the rage of the tigress knows no bounds ; no danger can terrify it, and she will pursue the plunderers to the sea-shore, or the gate of the city. When she finds her offspring irrecoverably lost, she expresses her grief and indignation by the most fearful howlings.

The full-grown tiger cannot be tamed, and it would as readily destroy him who feeds it as the man who insults it. Emblem of ungrateful man !

HYÆNA.

צבוע, TSEBOA. *Streaked, striped.*

PSALM LIX. 6.—“ *They return at evening, they make a noise like a dog, and go round about the city.*”

THE hyæna by naturalists is considered of the canine or dog race. Some passages of scripture applied by our translators to the domesticated *canis* or *dog*, seem to be more applicable to the hyæna, which is a description of dog in the wild, untamed, and ferocious state. Surely the wicked who encompassed Christ much more resembled furious hyænas, than tame, domesticated



THE HYÆNA.

dogs. (Psalm xxii. 16.) "Dogs have encompassed me about." How much more expressive it would have been if the words had been rendered, "Hyænas have compassed me about."

Of the hyæna, there are three kinds; namely, the *hyæna vulgaris*, or common; the *hyæna crocuta*, or laughing hyæna; and the *hyæna fusca*, or brown hyæna.

The skin of the common hyæna is striped; its hair long, erect, and coarse; its head broad and flat; and in its eyes the frightful expression of sullen wildness. From the head to the tail, along the top of the back, runs a bristly mane, which greatly adds to the fierceness of its appearance. The tail is short and bushy. The hyæna carries its head somewhat like a dog when pursuing the scent, with its nose near the ground, which gives to the shoulders an elevated appearance. It is about the size of a large dog or wolf, while in form and disposition it more resembles the latter. Its cry is most peculiar and forbidding, in its beginning resembling the moaning of the human voice, and ending with a hideous and violent bellowing. Its eyes shine in the dark, and it is supposed to see as clearly in the night as in the day. It is an inhabitant of Asiatic Turkey, Syria, Barbary, and many other parts of Africa. It is a solitary animal, dwelling in the caverns of mountains, or in dens which it excavates for itself. Usually it lies concealed through the day, and roams abroad at night for its prey. It is exceedingly bold, and has

been found not to shrink from the panther and lion. Hyænas commit great devastations among flocks, follow armies from the hope of feeding on slaughtered bodies, and will violate the tomb, and drag out and devour mangled portions of the half-corrupted bodies of men. Alas! man is found more ferocious than the hyæna, in destroying and feeding on his own species.

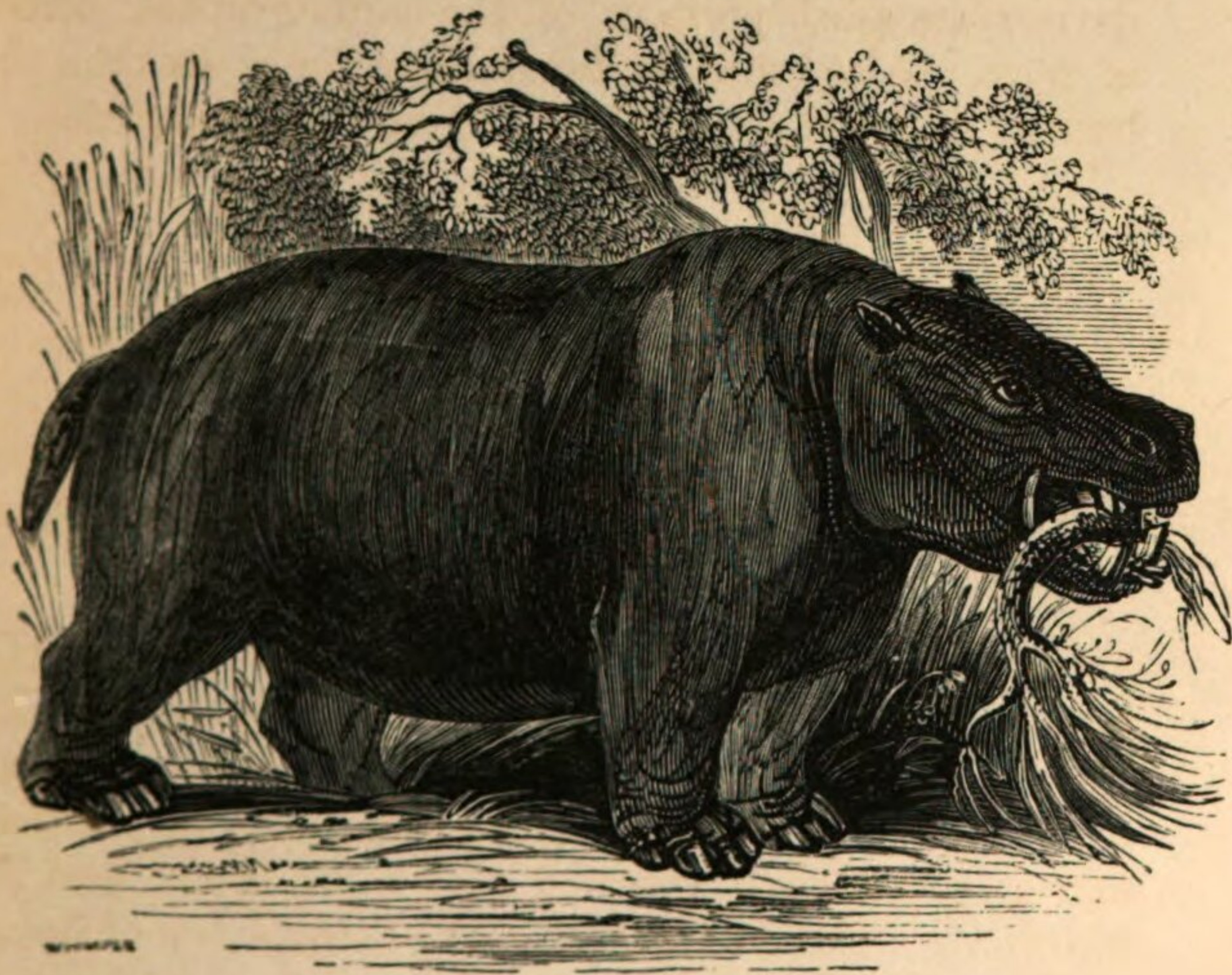
HIPPOTAMUS, OR BEHEMOTH.

בהמות, BEHEMOTH. *Dumb.*

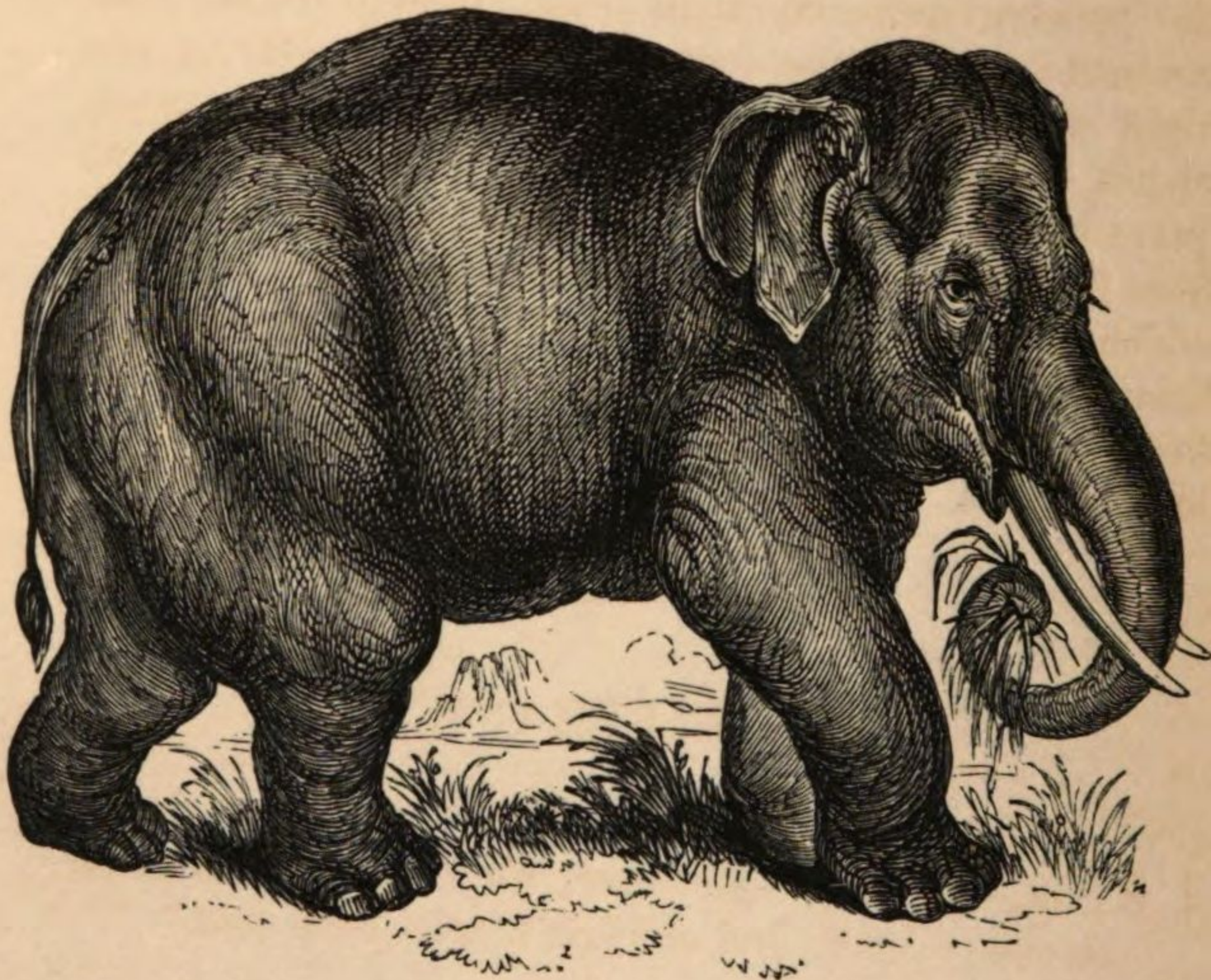
JOB, XL. 15.—“*Behold now behemoth, which I have made.*”

THE name *hippotamus* signifies the *river-horse*. His head is broad; his muzzle enlarged; lips very thick; from his lower jaw four large pointed teeth project; his tusks are formidable; skin thick; legs very short; four toes on his feet invested with small hoofs; and his tail short. The description in the book of Job of behemoth exactly applies to the hippotamus, making a little allowance for oriental poetical imagery.

Animals of this kind inhabit the large and shady rivers of Africa, from the Niger to the Beng, near the Cape of Good Hope;—they are found in the Nile in that portion of it which traverses Upper Egypt; and also in the pens and lakes of Ethiopia. They are



THE HIPBOTAMUS, OR BEHEMOTH.



THE ELEPHANT.

timid and sluggish on land. When pursued they betake themselves to the water, plunge in, and walk at the bottom, quite at their ease, though often constrained to rise to the surface for breath. During the night they leave the rivers, and feed on sugar-canes, rushes, millet, rice, &c. Of these they consume great quantities. This animal, when full grown, will weigh from five to six thousand pounds, a great proportion of which consists of fat, which is reckoned particularly delicious. Such is the veneration in which he is held, that the Negroes of Western Africa consider him a local deity.

THE ELEPHANT.

שֶׁנְהָב, SHENHAB. *Ivory teeth.*

1 KINGS, x. 18.—“*Moreover, the king made a great throne of ivory, and overlaid it with pure gold.*”

THE reason of selecting the preceding passage is this, the name *elephant* is not found in any part of the sacred writings, though several times mentioned in the first book of Maccabees. Besides, all acknowledge that *ivory* is the production of this wonderful animal, and which substance is mentioned often in the holy scriptures.

The elephant is a native of Asia and Africa, and

not found, except by importation, in other continents. He prefers as his abode plains, forests, and gently rising hills, and is particularly fond of the shady banks of rivers. There he is often seen indulging himself, filling his trunk with water, which he disperses over his body that he may enjoy its cooling influence. He is very susceptible of both cold and heat, and therefore he is found at a suitable distance from the torrid and the frigid regions.

In seeing any animal for the first time, the size peculiarly attracts our attention. The elephant is the largest animal that moves upon the face of the earth. When full grown, it is from seventeen to twenty feet in height. Its head is large, and somewhat resembling the shape of an egg. It has no fore teeth. From the upper jaw two tusks are projected, which are long, thick, and curved. The tusks form the ivory which is so generally known and used throughout the whole civilized world. In each jaw it has four grinders of surprising size. Considering the magnitude of the animal, its eyes are small; its ears are large, hanging down upon the side of its head. As the mouth cannot reach the ground either for eating or drinking, Providence has furnished it with a most curious and useful member, called a proboscis. This is a cylindrical trunk, which is fleshy, moveable in every direction, and which it can stretch out from one to five feet. By this it fetches food and water to its mouth, and is enabled to lift up from the ground the smallest object it

can see. It is also employed as a mean of defence, and also of severely punishing whatever it considers as an enemy. The female resembles the human species in this respect, it has two *mammæ* on its breast, by which it suckles its young. The skin of the elephant is wrinkled, hairless, and of a mouse-like colour. The tail is of a moderate length, the feet of course thick and strong, having each five hoofs. It is truly remarkable for its longevity, strength, sagacity, affection, fidelity, docility, and even modesty. It is considered as approaching nearest man, in apparent reason, prudence, skill and forethought. It has been often educated for the most useful purposes, for carrying commodities with its trunk from one place to another, and even in lading and unlading ships. It is very gentle when treated with kindness, but when provoked it is most formidable: it tears with its teeth, tosses with its trunk; trees of considerable size it will overset, and push down houses and walls. With one blow of its trunk it can strike a horse dead. Anciently, elephants were used in war, and towers were fixed upon their backs, capable of containing thirty warriors. They are still used in eastern nations on occasions of state pomp and magnificence, gorgeously caparisoned, and having for their riders exalted and royal personages, arrayed in all the pride of Asiatic luxury.

When they find death approaching, while they are in their wild and natural state, they are very choice in their selection of a place where they may lie down

and die. They bend their course to a very retired valley, shaded with magnificent trees, near a peaceful river, where numerous generations of their ancestors before them, guided by the same instinct, have expired. When they have reached the spot, there they fall down and breathe their last, as if they rejoiced to be gathered to their fathers! "O Lord, how manifold are thy works! in wisdom hast thou made them all."

THE BLACK-EAGLE.

נִשֵּׁר, NISR. *To tear in pieces.*

EXOD. XIX. 4.—"Ye have seen what I did unto the Egyptians, and how I bare you on eagles' wings, and brought you unto myself."

THE most perpendicular and inaccessible rocks are generally selected as the habitation of the black eagles; and from these they occasionally descend into the plains to feed. They attack and devour indiscriminately every kind of bird; and when hard pressed by hunger, will feed on carrion. These birds are found in all quarters of the world, and in hot as well as cold climates. This species is of small size, as large again as a



THE BLACK EAGLE.



THE SEA EAGLE.

crow. Its jaws and eyebrows are without feathers, and of a reddish appearance. Its head, neck, and breast are black. In the middle of his back he has a large triangular spot, of a pale brownish red. His wings are variegated with black, white, and grey. His beak is of moderate size and black at the end; the skin covering the nostrils red; and the iris of his eyes hazel-coloured. His legs are feathered a little below the knee, and he is provided with claws of great sharpness. Thus he is rendered formidable to birds of inferior strength. As their safety is their distance from this bloody foe, so it is our safety to be at a distance from those tempters who watch for our destruction.

THE SEA-EAGLE.

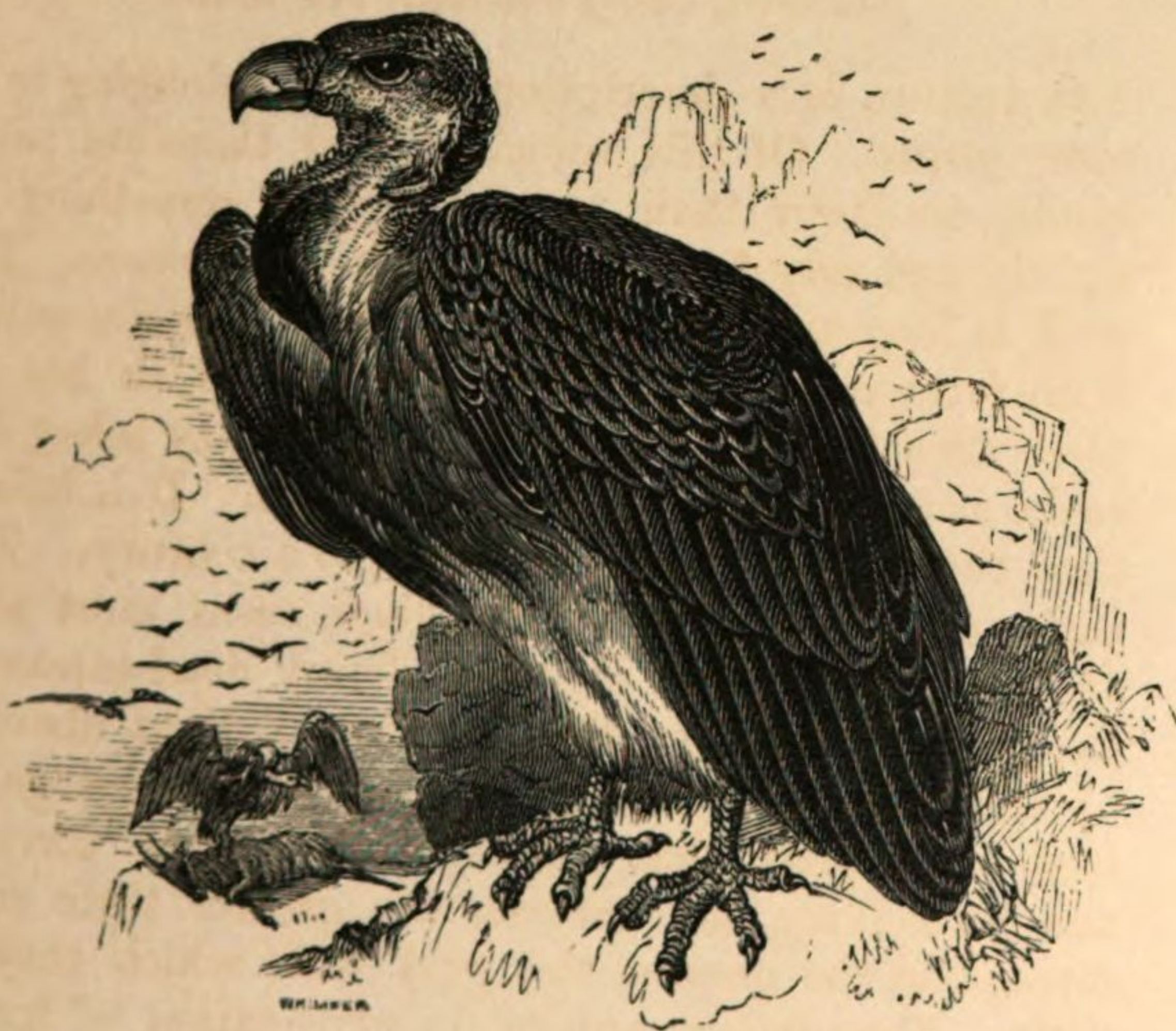
The sea-eagle has a large thick neck, its wings crooked, and tail broad. It builds its nest on sea-shores and islands. When it sees a fish in the water, it darts upon it with great rapidity and soon secures its prey. Before its young are fledged with feathers it makes them gaze on the sun; and, it is said, it kills and casts out of the nest such of its young as wink, or have their eyes watering.

THE VULTURE.

נָנִי, דָּאָח. *Swift-flying.*

ISAIAH, XXXIV. 15.—“*There shall the vultures also be gathered, every one with her mate.*”

THE vulture is a description of eagle belonging to the same *genus*. Of this voracious bird there are several kinds, no fewer than six. There is something unsightly and very forbidding in their appearance. Their neck is long and almost bare. Their legs are covered with feathers to the very feet, each of which has four toes, three before and one behind. They select lofty rocks as a place for building their nests. It is believed that their age sometimes extends to a century. Their sight is remarkably quick and their scent most acute. It is considered that they can detect dead carcasses at the distance of fifty miles. They delight above all to feed upon the dead bodies of human beings, but feed on nothing that has life. The more corrupted and putrefying the carcase, the greater their enjoyment, and the greater the gust with which they devour. They follow armies, in expectation of feasting upon the bodies of the slain. It is said they are great enemies to serpents. In cases of necessity, they are believed to feed their young with their own blood. There are two Hebrew names given in Scripture to this bird,—*doah*, signifying to fly, and *roah*, to see. This is characteristic of the remarkable quick sight of the



THE VULTURE.



THE PEACOCK.

vulture, by which it sees its prey from a great distance. To this Job most beautifully refers in speaking of *wisdom*, as so far removed from man, and as so difficult to be found: (Job, xxviii. 7:) "There is a path which no fowl knoweth, and which the *vulture's* eye hath not seen."

Let us rejoice that wisdom is to be found in the word of God! May it be our happiness to seek it, to look upon it with the eye of an illuminated understanding, and with the clear eye of saving faith!

THE PEACOCK.

תוּכִיִּים, THOUKIIM. *Deceit.*

1 KINGS, x. 22.—"Once in three years came the navy of Tharshish, bringing gold and silver, and peacocks."

IN the Linnæan system of zoology, the peacock, one of the loveliest of birds, and arrayed in the most gorgeous plumage, is a distinct *genus*, belonging to the order of *gallinæ*. Its head is adorned with a most imposing ornament of feathers reversed, in the form of a plume. Indeed, this is a natural crown, which adds exceedingly to the nobleness of its appearance. It has a long tail, diversified with several colours, and adorned with marks at equal distances, having the form of eyes.

The golden glowing beauty of these marks, particularly when they reflect the bright beams of the sun, defy the pen of the poet and the pencil of the most accomplished artist. Its wings are mixed with the colours of azure and of gold. While it has the loveliest colours, it has the most disagreeable, harsh, and discordant voice. It is described by some as having the head of a serpent, train of an angel, and the voice of a demon.

Peacocks were first brought from India, where they are still found in the wild state in immense flocks, and also in the islands of Java and Ceylon. They were imported from India to Greece, and being the bird sacred to Juno, were preserved about the temple of this deity at Samos.

Peacocks are said to cast their feathers along with the trees. In former days they were cooked to grace the feasts of our ancient kings; but their flesh is by no means agreeable to the general taste, though the art of cookery may render it somewhat palatable. This bird was among the imports brought by the trading navy of Solomon from India to Palestine. It was considered such a rarity, that it is particularly mentioned among the valuable commodities brought to Jerusalem from distant eastern nations. A learned writer justly remarks: "Let any one attentively survey the peacock in all the glorious display of the prismatic colours of his train, and he will not be surprised that Solomon's mariners, who cannot be supposed ignorant of their master's taste for natural history, should bring

some of these wonderful birds from their southern expedition."

The following description is given of this remarkable bird in a poetical paraphrase of the book of Job :—

"The peacock view, still exquisitely fair,
When clouds forsake, or when invest the air ;
His gems now brightened by a noon-tide ray ;
He proudly waves his feathers to the day,
A strut majestically slow assumes,
And glories in the beauty of his plumes."

It is peculiar to this bird, in common only with few others, to have the muscular power of elevating its tail, and spreading forth all its glowing beauties to the view. Dr. Young employs his poetical language and powers in giving the following description of this remarkable display :—

"How rich the peacock ! What bright glories run
From plume to plume, and vary in the sun !
He proudly spreads them to the golden ray,
Gives all his colours and adorns the day ;
With conscious state the specious round displays,
And slowly moves amid the waving blaze."

We may consider the peacock as an emblem of vanity and pride. Some, like this bird, have a fair exterior ; to comeliness of countenance and elegance of proportion, they add the rich embellishments of fashionable and gaudy apparel ; but the moment they speak they betray their disgusting vanity, emptiness, pride, and folly. May

our ornaments be those of wisdom and grace, which will shine brighter than the stars for ever and ever !

THE OSTRICH.

תנץ, JONAH. *Loud crying.*

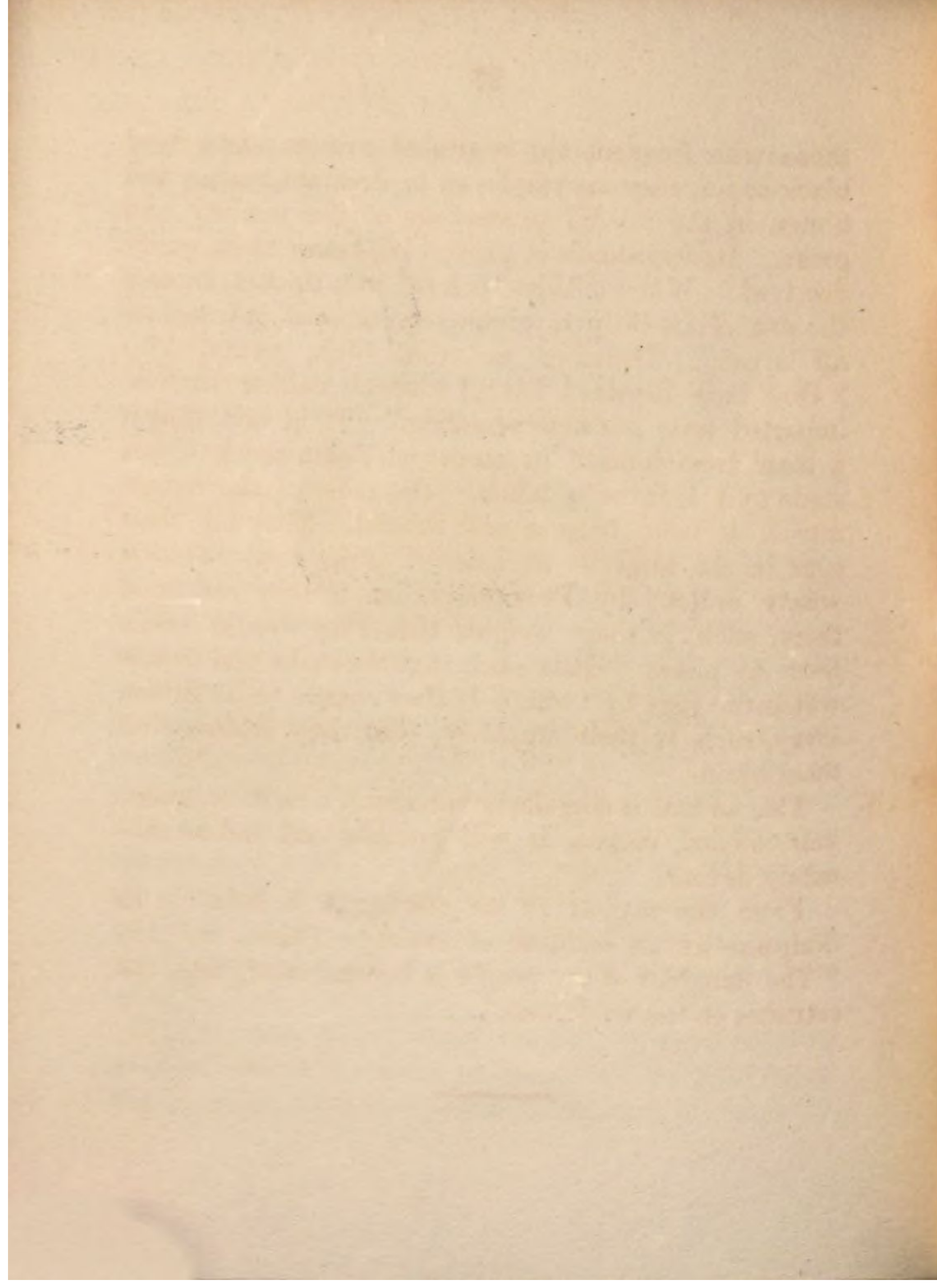
JOB, XXXIX. 13, 14.—“ *Gavest thou wings and feathers unto the ostrich ? which leaveth her eggs in the earth, and warmeth them in the dust.*”

THE ostrich is an inhabitant of Africa and Arabia. Its beak is of a conical shape, its legs long and naked : it has only two toes on a foot, both turned forward ; and its wings are short, and which rather serve for sails than for flight, so that the movement of this bird at full speed has more the appearance of *sailing* than *running*. It is the tallest of birds, being seven or eight feet high when it stands erect. Its neck is about four or five spans in length. Assisted by its wings the swiftest horse is unable to overtake it. How true the following account given of its swiftness in the inspired volume : (Job, xxxix. 18 :) “ *When she lifteth up herself on high, she scorneth the horse and his rider.*”

The ostrich is peculiarly valuable on account of its feathers, which are used as ornaments for hats, beds, and canopies. Of the purest white, they are used by



THE OSTRICH.



those who frequent the courts of princes ; and dyed black as jet, they are employed to decorate hearses and horses in the funeral processions of the wealthy and great. Its foolishness is proverbial, being most easily deceived. When it hides its head in a thicket, though the rest of its body is completely exposed, it imagines all is safe. Therefore we read, (Job, xxxix. 17,) "God hath deprived her of wisdom, neither hath he imparted unto her understanding." It is said, that if a man dress himself in an ostrich's skin and hold out seeds to it, it is easily taken. The noise of the female ostrich is most hideous and doleful. They lay their eggs in the sand to be hatched in the sun. This is wisely ordered by Providence, for if they sat upon them, such is their weight, that they would break them to pieces. It is said, that the male and female watch the eggs by turns. If they chance to be driven away, such is their stupidity, that they seldom find them again.

This animal is singularly voracious. Leather, grass, hair, stones, metals, it will greedily and indiscriminately devour.

From the neglect of its young, it is held up in Scripture as an emblem of cruelty : (Lam. iv. 3 :) "The daughter of my people is become cruel, like the ostriches in the wilderness."

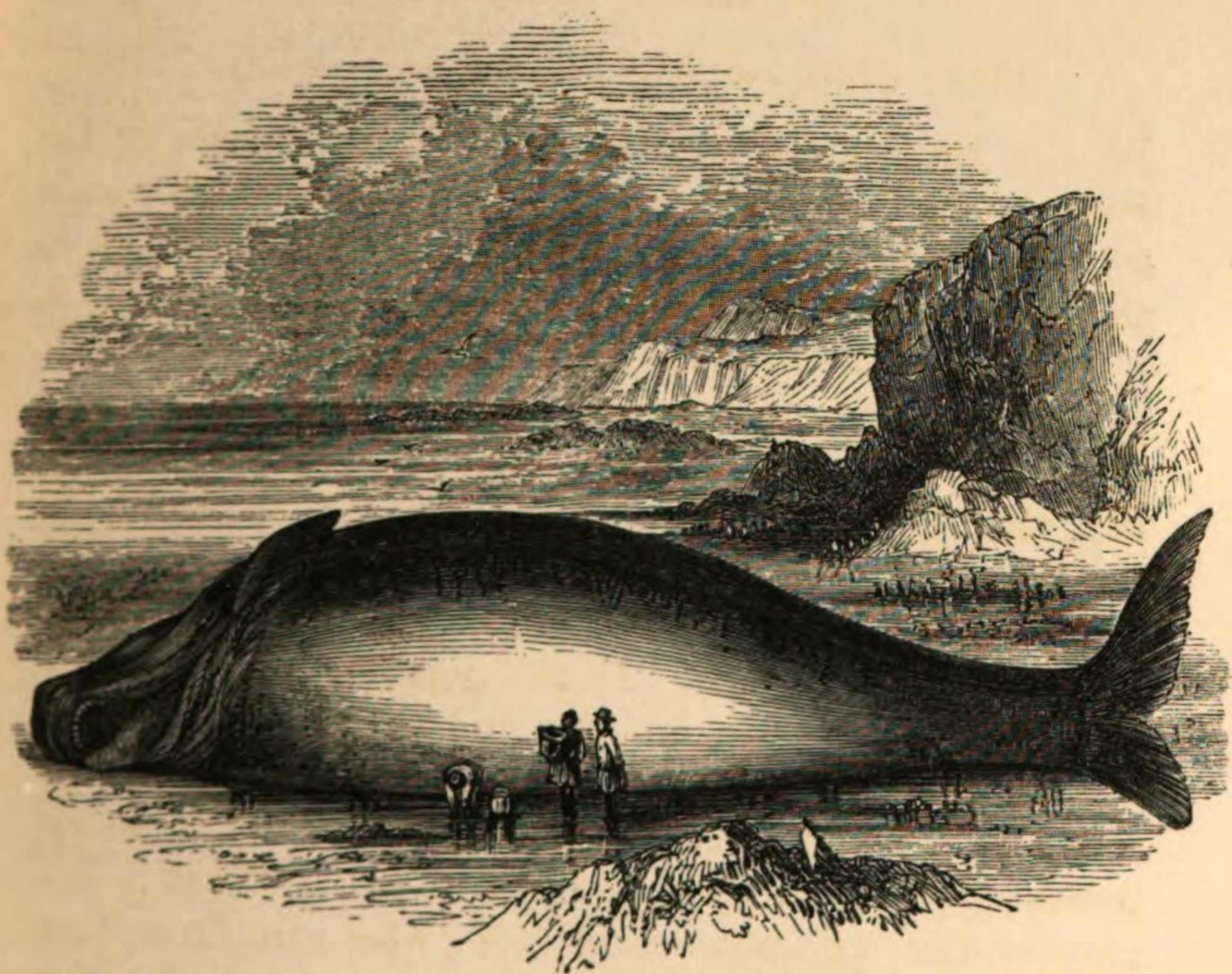
THE WHALE.

יָנָה, THAN. *Doleful cry.*

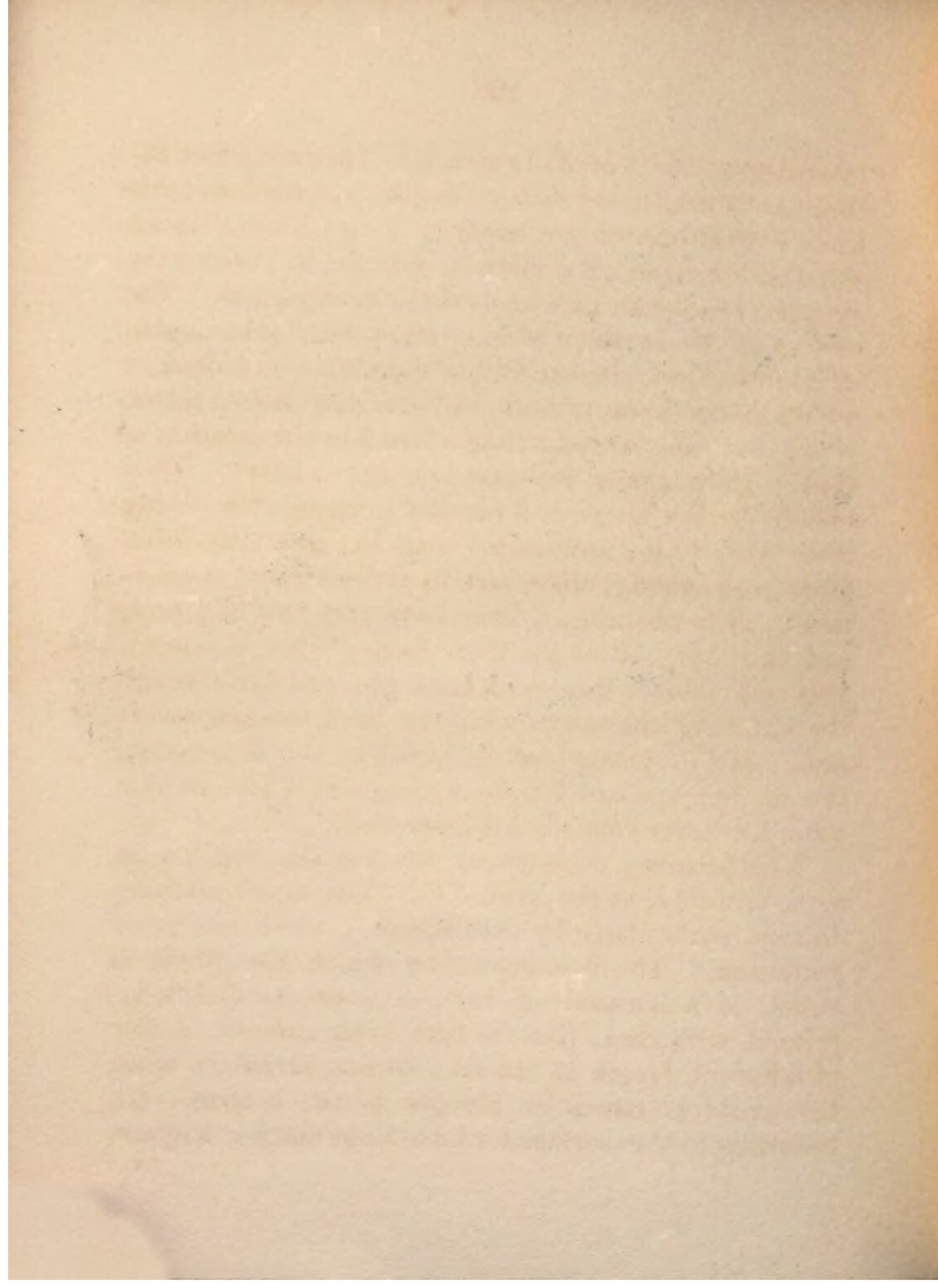
GEN. I. 21.—“*God created great whales.*”

IN the Linnæan system of zoology, the whale is the seventh order of *mammalia*. The *mammalia* give suck to their young, like land animals. Jeremiah alludes to this remarkable fact, when he says, in Lament. iv. 3, “The sea monsters draw out the breast, they give suck to their young ones.” Animals of this order have breathing apertures on the head, they have pectoral fins, that is, on the breast, and the tail is placed not perpendicular, like other fishes, but horizontal or flat.

In its size it remarkably exceeds all other creatures belonging to our globe. In the northern seas they are about ninety feet in length, and in the torrid zone, where they remain unmolested, they have been found one hundred and sixty feet in length. O what an astonishing mass of animated substance! What a display of the omnipotence of God, who can form such stupendous creatures with as much ease as he can form the fly or the worm! The head is in size about one third of the fish. The under lip is much broader than the upper, which is narrow and oblong. Some whales have teeth, but these are found near the south pole: they are very fierce, and are fished for obtaining that oil which is called spermacetti. The whales in the Northern Ocean have no teeth. They are provided with a description of long, thin, flexible bones, sus-



THE WHALE.



pended from the roof of the mouth. They are about fifteen feet in length and end in fringes. As whales of this kind live altogether by suction, these flexible bones serve the purpose of a sieve or syringe, to prevent the entrance of substances which would be injurious. The surface of the northern seas is filled with animalculæ, in countless and inconceivable quantities, sufficient to maintain the lives of hosts of these magnificent fishes, which are the largest animals found in the creation of God. Here again we are lost in wonder! They breathe by the lungs, and for this purpose often bring their heads to the surface to inhale the air: they bring forth their young alive, and they discover great affection to their offspring. They have only one at a time, and they keep it under their fins. When in danger, they will embrace them with these fins, and dart through the waters of the ocean with the most amazing swiftness. If the young *cub* is killed by the harpooners, the mother appears frantic with grief! The mother never leaves its young till it is weaned.

Whale-fishing commenced by the Norwegians as soon, probably, as the year 837. The art of catching whales, particularly by the British, is carried to great perfection. The instrument by which the whale is struck is a harpoon of iron, five or six feet long, pointed with steel, like the barb of an arrow. A line of sufficient length is attached to the harpoon: when the whale is struck he plunges to the bottom. On returning to the surface for breathing, another harpoon

is struck into him. By loss of blood he becomes faint, when the men approach him with safety, thrust a long steeled lance into his breast, which is soon followed by his death. When the carcass begins to float, they make holes through the fins and tail, in which a rope is passed. He is then towed to the side of the ship, the blubber or fat is collected, and the whalebone from his mouth, which articles have long proved such useful and profitable commodities of trade.

We conclude our account of this most prodigious display of the Creator's power in the animated kingdom in the language of the Psalmist: (Psalm cxi. 2 :) "The works of the Lord are GREAT, sought out of all them that take pleasure therein."

THE CEDAR.

אֵרֶז, EREZ. *Firm, stable, durable.*

PSALM XCII. 12.—"*The righteous shall grow like a cedar in Lebanon.*"

FREQUENT mention is made of the cedar of Lebanon by the inspired writers. No tree in the vegetable kingdom is so often made use of in the sublime poetry of Scripture, as the cedar. In Psalm lx. 13, it is called "the *glory* of Lebanon." It is a most magnificent evergreen, remarkable for its height and the horizontal



THE CEDAR.

extent of its branches. By Linnæus it is classed among the junipers. The cedars of Lebanon were two hundred feet in height, and nearly forty feet in girth; thus the diameter of the stock or body of the tree exceeded ten feet. Cedars spread their roots to an amazing extent, and strike deep into the earth, which is essentially necessary for the security of a tree of such size, when assailed by the raging tempest. A figure is taken from this circumstance illustrative of the security, as well as the spiritual growth of the saints: (Hoseah, xiv. 5 :) "Israel shall cast forth his roots as Lebanon." The wood of this tree is of a beautiful brownish colour, the grain is fine, and the odour delightfully fragrant. The taste is peculiarly bitter, by which it is preserved from the ravages of worms, which, though insignificant in size, often completely destroy trees of the greatest magnitude. There is no tree so durable. It may be almost pronounced incorruptible. Some cedar-wood was found perfectly fresh in a temple in Utica, in Barbary, where it had remained at least two thousand years. On this account cedar was employed by the ancients in building their most noble and sacred edifices. It was much used in rearing the temple of Solomon. There were first three rows of stones, and then one of cedar-wood. Compared with the days of Solomon, there are now few cedars on Lebanon: then that mountain was clad with immense forests consisting of cedars, and with justice it deserved to be called "the wonder of the world."

Jesus is compared to a *cedar*. (Song v. 15.) "His countenance is as Lebanon, excellent as the *cedar*." This intimates his strength, height, comeliness, duration, influence, and the refreshing shadow which he affords to his saints. The people of God are likened to cedars, because they are rooted in Christ, shall grow up to the lofty stature of divine perfection, and flourish as eternal evergreens in the paradise of the blessed.

THE CAMEL.

למל, GAMAL. *Revenge.*

ISAIAH, LX. 6.—"*The multitudes of camels shall cover thee.*"

THE name, *camel*, with little variation, is the same almost in all languages. According to Linnæus, it is a distinct *genus* of animals. It has no horns; in the lower jaw it has six cutting teeth, but none in the upper; the upper lip is divided like that of the hare; its hoofs are small, the bottom of the foot tough and pliant, by which, above all other animals, it is fitted to be serviceable to man in crossing sandy, hot, and extensive deserts. The neck and legs of camels are long and slender: when they lift up their heads they are high, and their appearance imposing and noble. Their ears are short, and their tail about a foot long. Their



THE CAMEL.

bodies are covered with a fine fur which falls from them in the spring; this is considered valuable, and therefore gathered up with great care. The Turks eat the flesh of the young, and the Arabs hold their milk in great estimation, as they consider it a prevention of dropsy. Camels chew the cud; but as they do not divide the hoof, were forbidden by the Levitical law as unclean. Unlike other animals, the interior of the camel is furnished with an additional bag, formed as a reservoir to contain a far larger quantity of water than is necessary for immediate use. On this account, he can continue a much longer time without drinking than any other quadruped, and is thus prepared and fitted for being useful to man as a beast of burden, in passing over extensive deserts, where a supply of water is rarely to be found. It seems also that the camel has the power of closing its nostrils, so that the smallest particle of sand is excluded. This faculty renders it more suited to the life to which it is destined, in carrying merchandise over extensive sandy regions. The camel, though naturally gentle and docile, is proverbially revengeful. No irrational animal remembers an injury longer, or resents it with greater severity. Hence, among the Arabs, "a camel's anger" is a proverb employed to denote determined and deep-rooted enmity.

The great use of *camels* is as beasts of burden, for which purpose they are employed to a great extent by the Turks and Arabs. They are taught to kneel

down to receive their burden, and also to allow it to be taken off. In ancient times, camels were considered a valuable patrimony. Thus, Job had three thousand camels. Job, i. 3.

Camels will be subservient to the spread and prosperity of the glorious gospel: (Isaiah, lx. 6 :) “The multitude of camels shall cover thee; the dromedaries of Midian and Ephah; all they from Sheba shall come: they shall bring gold and incense; and they shall show forth the praises of the Lord.”

THE OSPRAY.

פֶּרֶס, PERES. *To break in pieces*

LEVIT. XI. 13.—“*They shall not be eaten, the ossifrage and the ospray.*”

THIS bird may be called the fishing-eagle, but preferring fresh water to salt. The male is one foot and about ten inches in length; the female, which is somewhat surprising, about two feet, and from tip to tip of its expanded wings, measures about five feet and a half, and thus larger than the male. The legs are short and strong, and the toes and claws admirably formed for securing the fishes, its slippery prey. It selects for its nest the crevices of rocks, the tops of lofty trees, and occasionally builds on the ground in concealed places among



THE OSPRAY.

the reeds. It lays from two to four white eggs, with reddish spots, and rather of a smaller size than those of the domestic hen. Some time since, Colonel Montague, an observer and admirer of the objects of nature, saw a nest belonging to a pair of osprays on the top of the chimney of a venerable ruin, on an island in the far-famed Scottish lake, Loch-Lomond: he gives the following description of the nest: "It was large and flat, formed of sticks laid across, lined with flags, and resting on the sides of the chimney." From an expression in some old acts of parliament, there is reason to believe that this species of eagle was once trained to fishing in England: now it is seldom met with in that country. It resides near water, especially large rivers and lakes; and it feeds principally on fish, which it catches with much greater eagerness than the keen and patient angler. It pounces on its prey with astonishing rapidity, sometimes actually plunging two feet under the surface of the water, when it successfully seizes and carries off its prey to some distance, where it feasts at leisure with greater delight than the most skilful epicure. In the hatching season, it is frequently seen about the lakes of Killarney in Ireland. It is to be met with in most of the countries of Europe, even from Sweden to Greece. Travellers have seen it in Egypt, Nigritia, Barbary, and Louisiana. In the spring and summer months it is often seen hovering in solemn majesty over the large American rivers for several minutes at one time, resting on the

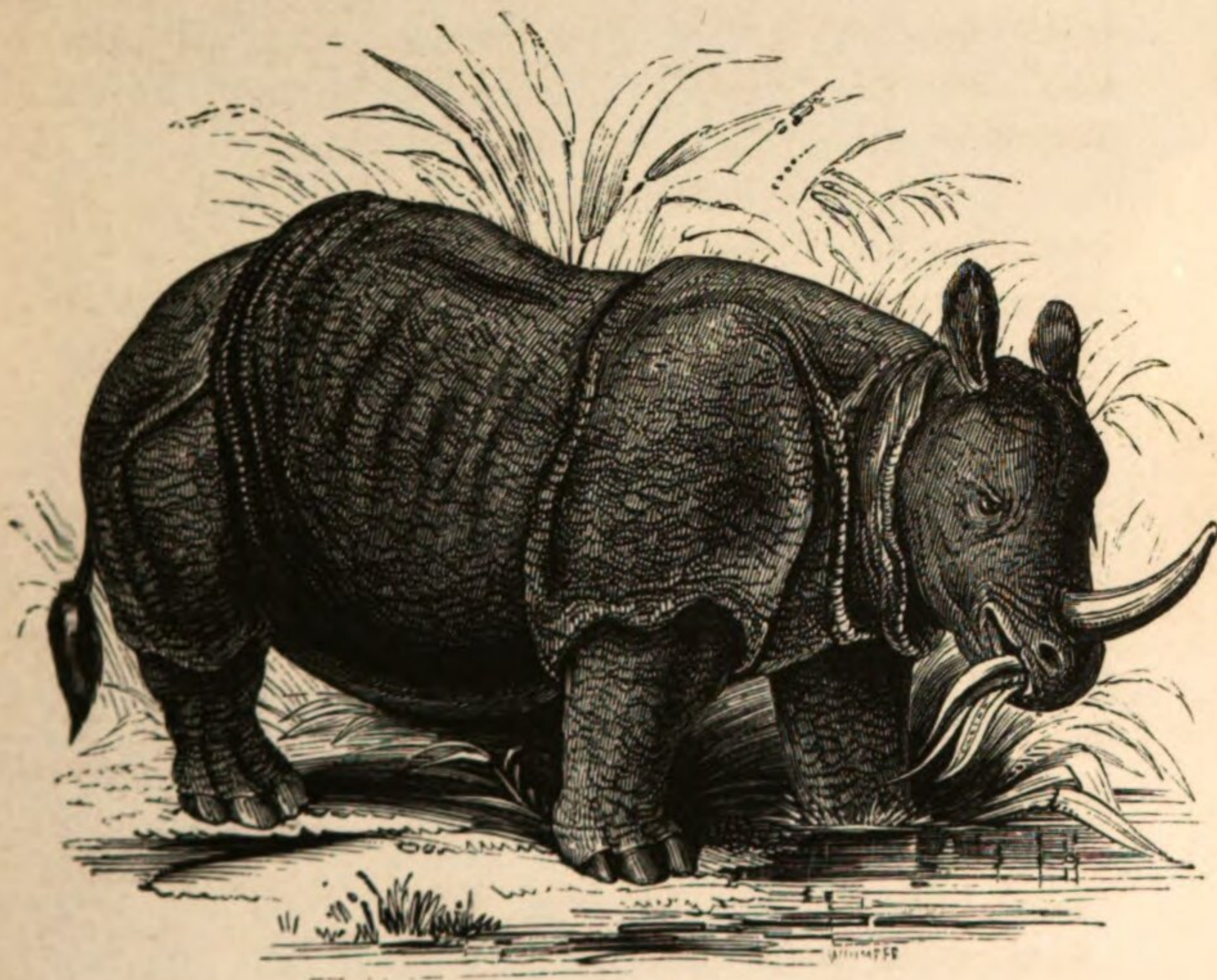
wing as motionless, when it darts down in a moment, dives into the water below, and seldom fails of securing a fish in its talons. It is very striking to see it, immediately after, shaking off the water from its feathers, which rises up like a cloud of mist, and then the bird shapes its course to the neighbouring woods.

THE RHINOCEROS, OR UNICORN.

רֵמ, REEM. *High.*

JOB, XXXIX. 9.—“ *Will the unicorn be willing to serve thee, or abide by thy crib?* ”

THE Hebrew name *reem* is translated in our Bible *unicorn*. In the Septuagint, a similar translation is given of it in the Greek language, namely *μονοκερος*, MONOCEROS. The Hebrew name *reem*, signifies *exalted*, and is therefore descriptive of the elevated and formidable horn with which the unicorn is provided. There is some doubt among the learned to what particular animal the name *reem* is justly applicable. One thing is certain, that what is said of the *reem*, or *unicorn*, is strictly true of the rhinoceros, of which we will endeavour to furnish some description. It is remarkable for its strength : (Num. xxiii. 22.) “ God brought them out of Egypt ; he hath as it were



THE RHINOCEROS, OR UNICORN.

the strength of the unicorn." It is a formidable enemy, therefore it is said, (Deut. xxxiii. 17,) "His horns are like the horns of unicorns; with them shall he push the people together to the ends of the earth." It cannot be tamed or rendered subservient to the purposes of agriculture: (Job, xxxix. 10, 11, 12 :) "Canst thou bind the unicorn with his band in the furrow? or will he harrow the valleys after thee? Wilt thou trust him because his strength is great? or wilt thou leave thy labour to him? Wilt thou believe him that he will bring home thy seed, and gather it into thy barn?"

In zoology, the unicorn is a genus of quadrupeds belonging to the order of *belluæ*. The horn is placed near the end of the nose, black, smooth, and sometimes three feet and a half long. It serves a double purpose, that of defence and that of grubbing up the ground for the purpose of obtaining substances on which it feeds. The upper lip is long, and hangs over the lower, ending in a point; the ears are large, erect, and pointed; the eyes small and dull; the skin is naked and rough, lying about the neck in large folds; there is a fold also from the shoulders to the fore-legs, and another from the hind part of the back to the thighs. The skin is so thick and strong as to resist the edge of a scymitar, and even turn off a musket-ball. The belly is low, the legs strong and thick, the hoofs divided into three parts, each pointing forward.

It is an inhabitant of Bengal, Siam, parts of China,

the large East India islands, Ethiopia, and found in the low countries reaching near the Cape of Good Hope. It delights in shady forests and the neighbourhood of rivers and marshy places. It resembles the swine in being fond of wallowing in the mire; its affection to its young is peculiarly strong, and it brings forth only one at a time: it is quiet and inoffensive, but if provoked, it is furious and very dangerous. Its scent is most exquisite: it feeds on vegetables and grunts like a hog. In very early times it was known to the Romans. Its figure is among the animals of the Prænestine pavement. Augustus introduced one into his shows on his triumph over Cleopatra. There is a coin of Domitian extant with a double-horned rhinoceros upon it. The skin of this animal is like a coat-of-mail, which cannot even be affected by the claws or teeth of an infuriated tiger, which can much more easily conquer the elephant than this wonderfully protected inhabitant of marshy places and the banks of rivers. Pliny, the Latin historian, calls it the *fera monoceros*, that is, the *wild unicorn*. The unicorn of Holy Writ has all the properties of the rhinoceros, namely, rage, untameableness, swiftness, and great strength.



THE HYSSOP.

THE HYSSOP.

זוֹב, EZOB. *Flowing.*

PSALM LI. 7.—“*Purge me with hyssop, and I shall be clean.*”

OUR English word *hyssop* is immediately derived from the Hebrew, and is almost a Hebrew word. It is in our Hebrew Bible, EZOB. This word is taken from one which signifies to flow, or run like a stream; and hence this herb receives the name *hyssop* from its purifying properties. This shows great force in the figure which the royal Psalmist employs, when he says, “Purge me with hyssop and I shall be clean.”

It is a plant of the *gymnospermia* order, and belonging to the *didinamia* class; it is a perennial evergreen undershrub, a native of the south of Europe, was well-known in Palestine, and has been long cultivated in our gardens. The stems rise in height about a foot and a half; the leaves are lanceolate, or resembling the point of a lance or spear, and they are narrow, like those of lavender, but somewhat shorter. There are several varieties, blue, red, and white-flowered, and hairy-leaved; but the first is the most commonly cultivated: it is highly aromatic in its scent. The leaves and young shoots are sometimes used for culinary purposes, or in cooking; while the leafy tops and flower-spikes are cut, dried, and preserved for medicinal uses.

By divine command, hyssop was used for sprinkling

under the Levitical law, for sacred ceremonial purposes. It was used in sprinkling the blood of the passover-lamb, sprinkling the water of purification, and the mingled blood and water on the leper. These sprinklings might denote and shadow forth the fragrant and pure ordinances of the gospel, in which the blessed merit of Christ's blood and righteousness is brought near and applied to our soul.

When our Saviour was expiring on the cross, a soldier took a stick of hyssop, fixing on the end of it a sponge filled with vinegar, and presented it to his lips; immediately after, he died. "When Jesus, therefore, had received the vinegar, he said, It is finished; and he bowed his head and gave up the ghost." (John, xix. 29, 30.)

ROE, ANTELOPE, OR GAZELLE.

צִבִּי, TZEBI. *To collect.*

SONG VIII. 14.—"*Make haste, my beloved, and be thou like a roe or a young hart upon the mountains of spices.*"

THE Hebrew name of this most lovely species of the deer tribe, is TZEBI. This name is derived from a word signifying to *collect*, and is very characteristic of the antelope or gazelle, which species live together in troops



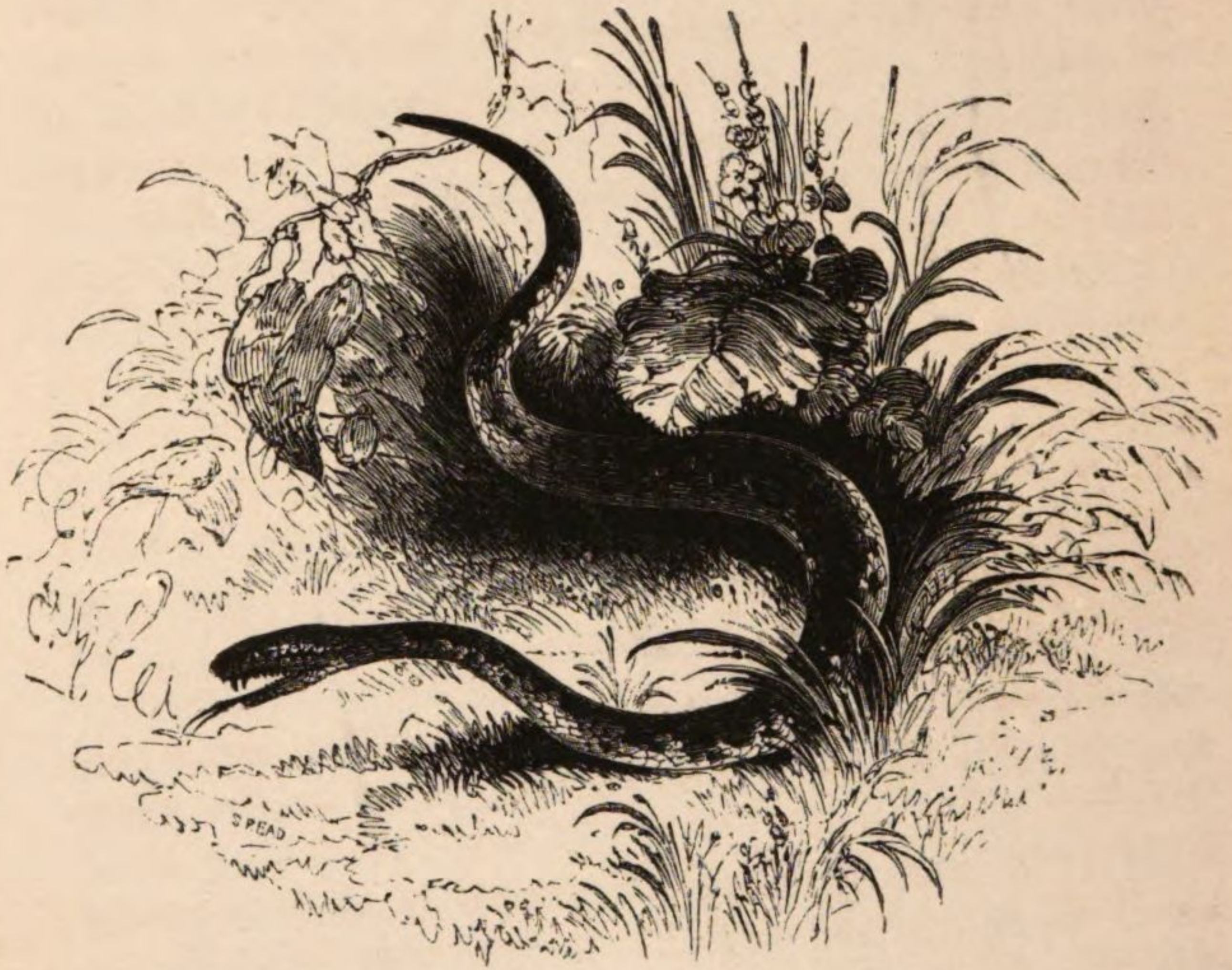
ROE, ANTELOPE, OR GAZELLE.

sometimes amounting to thousands. The writers of the Septuagint translate the term *tzebi*, by *δορκας*, which signifies *beauty*. David, in his lamentation over Saul and Jonathan, compares them to the *gazelle*. (2 Sam. i. 19.) "The *beauty* of Israel," the *tzebi* of Israel, in the Septuagint, the *dorcas* of Israel, or as it may be rendered poetically, in reference to this most lovely of quadrupeds, "The gazelle of Israel is slain upon thy high places." This beautiful creature is three feet four inches in length, and little more than two feet in height. Its horns differ particularly from other species of deer; they are annulated or ringed round, with depressions running from the bottom to the top. The eyes of the gazelle are singularly beautiful and brilliant, and yet presenting such an expression of meekness, softness, and gentleness, that Eastern poets compare the eyes of the most beautiful women to those of this animal. Hence the following figure is common in their poems; "a gazelle-eyed beauty."

There are two kinds of gazelles or antelopes, the gazelle of the mountain, and that of the plain. The gazelle of the mountain is by far the most beautiful, and it bounds with such surprising agility as if it possessed the power of flying. In fleetness they far exceed the swiftest greyhound: to this extraordinary swiftness, we have in Scripture some very striking poetical allusions: in 1 Chron. xii. 8, some of King David's heroes are thus described: "Whose faces were like the faces of lions, and were as swift as roes," or gazelles,

“upon the mountains.” A similar figure is employed in Song ii. 8, 9, 17, by the church, in speaking of Christ, the object of her superlative love: “The voice of my beloved! behold he cometh leaping upon the mountains, skipping upon the hills. My beloved is like a roe or a young hart! Until the day break and the shadows flee away, turn thou my beloved, and be thou like a roe (*a gazelle*) or a young hart upon the mountains of Bether.” Jesus is likened to a roe or gazelle, to mark his loveliness, his love, and his swiftness to save. He came leaping over the mountains of our provocations and guilt, to deliver us from the snare of the fowler, and from the lowest hell. Saints are likened to roes or harts panting after the water-brooks, to mark the earnestness of their desires after Christ and his ordinances, when hunted by Satan and persecuted by the world: (Psalm xlii. 1:) “As the hart panteth after the water-brooks, so panteth my soul after thee, O my God.”

The following method is often adopted for taking the gazelle. A tame one is trained to join those of its own species whenever it comes near them. When the hunter discovers a herd of those animals together, he puts a noose around the horns of the tame gazelle in such a way, that if any of the wild flock touch it, they get immediately entangled. As soon as the tame animal approaches the herd, the males go forth to oppose him, and in butting with their horns are caught with the noose. Finding themselves entangled, they make



THE VIPER.

a dreadful struggle for liberty, but all in vain; for the hunter is near, falls upon them, and immediately secures them. A figure is taken from this, and is employed by the wise man in the counsel which he administered to those who are caught in the *noose* of suretyship engagements: (Prov. vi. 5:) "Deliver thyself as a roe (*a gazelle*) from the hand of the hunter."

THE VIPER.

נָפֶחַת, EPHOECH. *Hissing.*

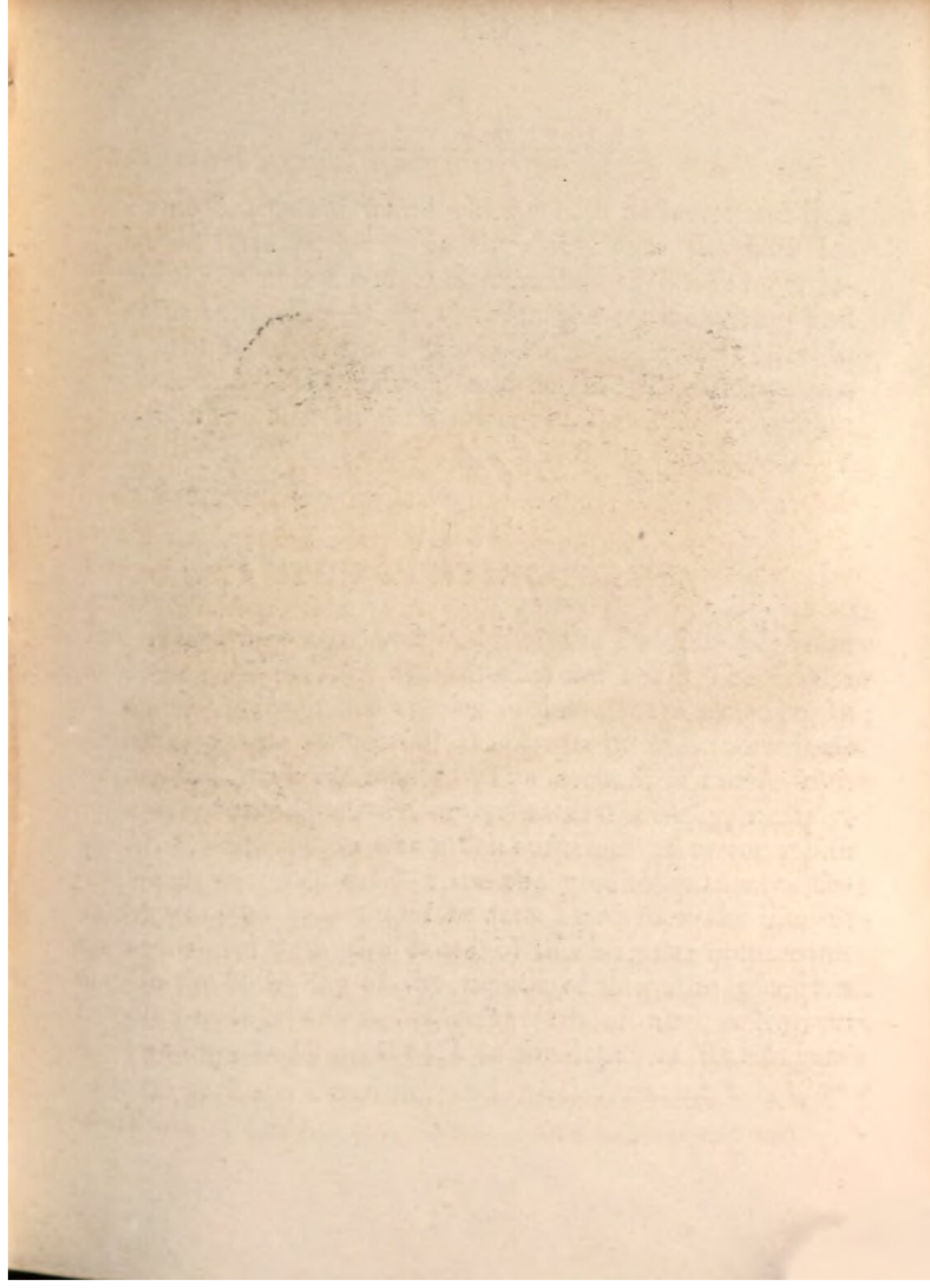
ISAIAH, LIX. 5.—"*He that eateth of their eggs dieth, and that which is crushed breaketh out into a viper.*"

THE Hebrew name of the viper is EPHOECH, and signifies literally *hissing*. The Greek name in the New Testament is EXIΔNA.

It is a species of serpent which is of all creatures upon the face of the earth the most venomous. Vipers vary in size and length. In Great Britain they are generally short and thick, while in foreign lands and warm climates they are found three feet in length. Their head is flat, and their mouth somewhat resembles the snout of a pig. Some kinds of serpents have two rows of teeth in each jaw, while vipers have but one row, consisting of sixteen small ones in each. The male vipers have two large teeth, which they can pro-

ject considerably when they are angry ; behind these teeth there is a bag of deadly venom, which is distilled through an opening in the tooth, almost invisible, and thus introduced into the object of their attack by the bite. Their body is of an ash or yellow colour, and the scales under their belly are of the appearance of well-polished steel. It is remarkable, that though their venom is of the most deadly description, their flesh is good for food ; even broth may be made of it, and prove an excellent medicine for the cure of dangerous maladies. The females do not bring forth their young all at once ; but they bring forth about twenty in twenty successive days. They are covered with small bags which open about the third day, when the young viper discovers its malignant nature, and is actually disposed and fitted so soon for entering on its deadly career.

The viper is a figure employed in Scripture to exhibit and illustrate man as malignant, cruel, and destructive. The Pharisees were likened by our Saviour to vipers, in consequence of their pernicious doctrines and opinions, which were indeed a dangerous moral venom, which ruined the souls of many, among whom their doctrines were disseminated : such too was their malice, that, like vipers, they sought the death of such as opposed them : (Matt. xii. 34 :) “ O generation of vipers, how can ye, being evil, speak good things ? for out of the abundance of the heart the mouth speaketh.” The destruction which awaits the wicked is illustrated





THE SYRIAN GOAT.

by the death which ensues from the viper's sting: (Job, xx. 16:) "He shall suck the poison of asps: the viper's tongue shall slay him." Unpardoned sin is compared to a sting, and called "the sting of death." Happy they who believe in Christ, they can sing joyfully and triumphantly, "O death, where is thy sting!"

THE SYRIAN GOAT.

שְׂעִירִים, SEIRIM. *Hairy ones.*

LEVIT. XVI. 22.—"*And he shall let go the goat in the wilderness.*"

THERE are various names given to goats in the Hebrew of the Old Testament. A common name is עֵז, EZ, signifying strength; another is עֶזְאֵזֶל, AZAZEL, signifying the scape-goat; a third is שְׂעִירִים, SEIRIM, "the shaggy or hairy ones." This last name is most applicable to the Syrian goat, generally known to the ancient Jews, and employed in sacrifice.

We may first furnish a short description of the goat species generally, and then point out the peculiarities of the Syrian goat.

The goat is a quadruped of the gregarious, or flock kind, resembling the sheep in size; its horns hollow, rather erect and bending a little backward. It is covered

with hair, pale and dun in its colour, which in Eastern countries is spun into cloth. It was of cloth of this kind the ancient coverings of the tabernacle were made. Goats are noted for their long beard, which gives them an appearance exceedingly venerable. They feed on an immense variety of herbs; even poisonous herbs, which are destructive to others, are wholesome to them. Their milk is considered healthy and medicinal. They can run on sides of rocks, and with the greatest ease can leap from one rock to another. They feed on the tops of hills and among rugged rocks, in preference to valleys and plains of the richest luxuriance. They find sufficient nourishment in heathy, barren, and uncultivated ground, and carefully avoid moist places, marshy meadows, and rich pastures.

The Syrian goat may be regarded as an elegant variety of the more common species. It is remarkable for its pendulous ears, which are often one foot in length. Their hair is remarkable for its length, its fineness, and glossy appearance. This species is exceedingly useful for the quantity and excellence of their milk, being sweet and most agreeable to the taste. This we find alluded to in Prov. xxviii. 27: "And thou shalt have goat's milk enough for thy food, the food of thy household and the maintenance of thy maidens." The hair of this species of goat has been long a considerable article of trade and manufacture. European nations have had agents employed for ages in Turkey, for the purchase of the wool of these



THE KITE.

animals. The most considerable manufacture of cam-lets fabricated with this wool in Europe is carried on at Lille, and Amicus, in French Flanders.

The most remarkable use of the goat in the Levitical law, was on the fast of atonement, when the one was sacrificed, and the other conducted to the wilderness and let loose, therefore called the scape-goat. The one represented the *human* nature of Christ which died, and the other the *divine*, by which he lived and conquered death.

THE KITE.

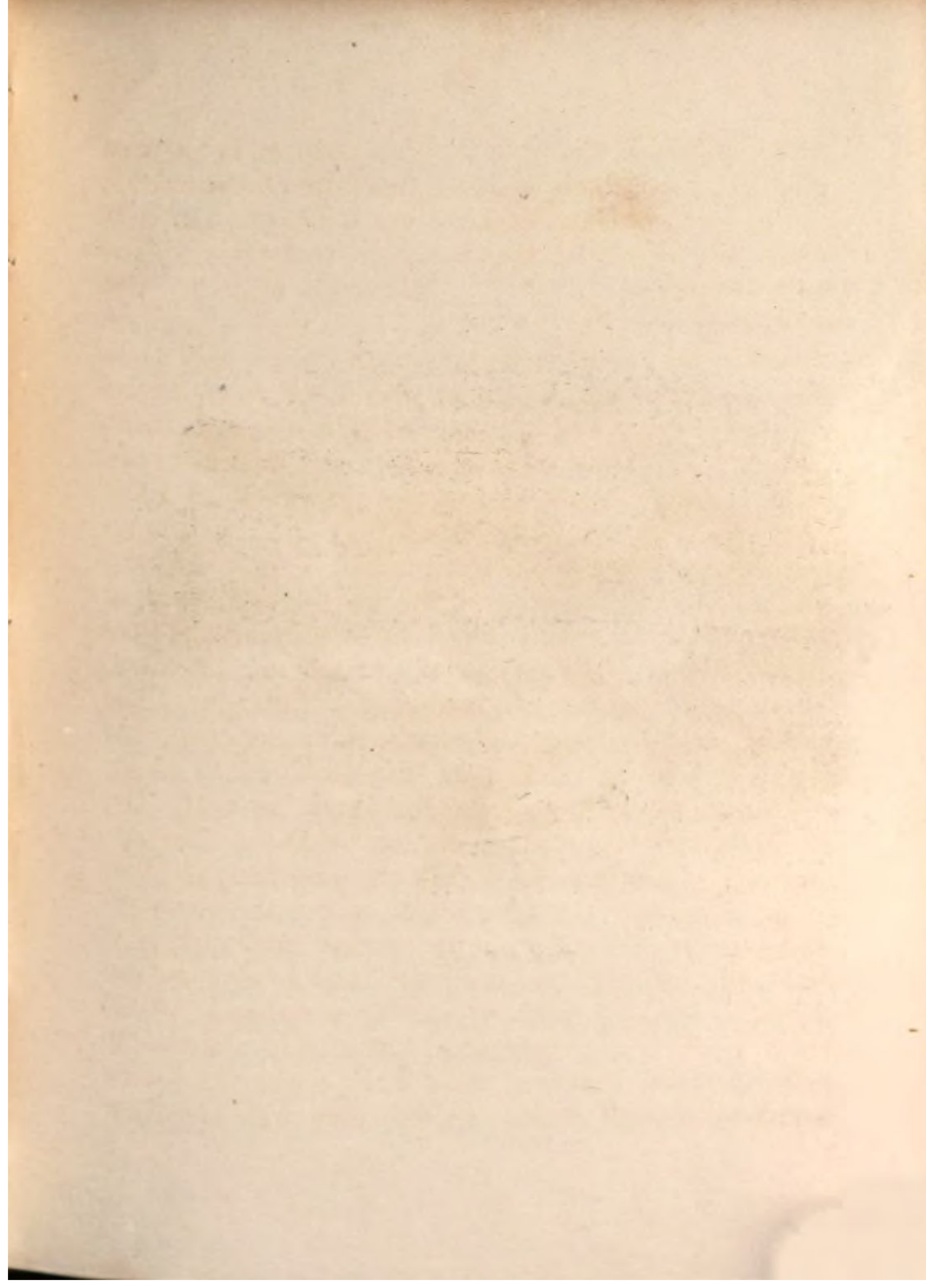
ק'ן, AJAH. *Lust.*

LEVIT. XI. 13, 14.—“ *And these are they which ye shall have in abomination among the fowls; the vulture and the kite after his kind.*”

THE name of this bird in the original is ק'ן, AJAH, derived from a word signifying lust or desire, and therefore descriptive of the bird, as being peculiarly ravenous. It is also remarkable for its share sight, to which reference is made in Job, xxviii. 7: “There is a path which no fowl knoweth, and which the *vulture's* eye hath not seen.” The name, rendered *vulture* by our translators, is the same word in the original rendered *kite* in Levit. xi. 14. There is very little said of this bird in Scripture, the principal allusion to it being

made by Job, in the twenty-eighth chapter, in his most glowing, poetical, and sublime description of *wisdom*.

The toes and claws of kites are weak, and the beak weak and small in proportion to their size. Their long wings and forked tail enable them to fly with astonishing rapidity and ease. As to the common kite, it is in colour variegated with brown and ferruginous, or resembling iron; the head whitish and streaked with brown; tail ferruginous and much forked. The male measures two feet two inches in length, and upwards of five feet in extent of wing. The female is somewhat larger. It is a native of almost all the countries of Europe, and is found in Siberia, Africa, and in some of the provinces of America. Many of those which breed in Europe retire into Egypt and other hot latitudes, during the cold season. They are partial to hilly and woody situations. The nest is built by the female early in the spring: she places it in a fork of a large tree, forming it of sticks, and lining it with soft materials, such as wool, hair, the inner bark of some tree, or bits of cloth. The appearance of the kite in the sky is singularly elegant, sailing along in its circling flight, and maintaining its equipoise by the slightest movement of its pinions. From its airy height, it suddenly darts down upon the object of its prey, such as rabbits, hares, game of all kinds, poultry, and birds which cannot fly. In ancient times, London swarmed with kites, when the streets were noted for filthiness. Indeed, they were necessary





THE JACKAL.

for the public health, and therefore by law it was forbidden to kill them.

JACKAL.

JUDGES, XV. 4, 5.—“*And Sampson went and caught three hundred foxes, (or jackals) and put a fire-brand in the midst between two tails; and when he had set the brands on fire, he let them go into the standing corn of the Philistines.*”

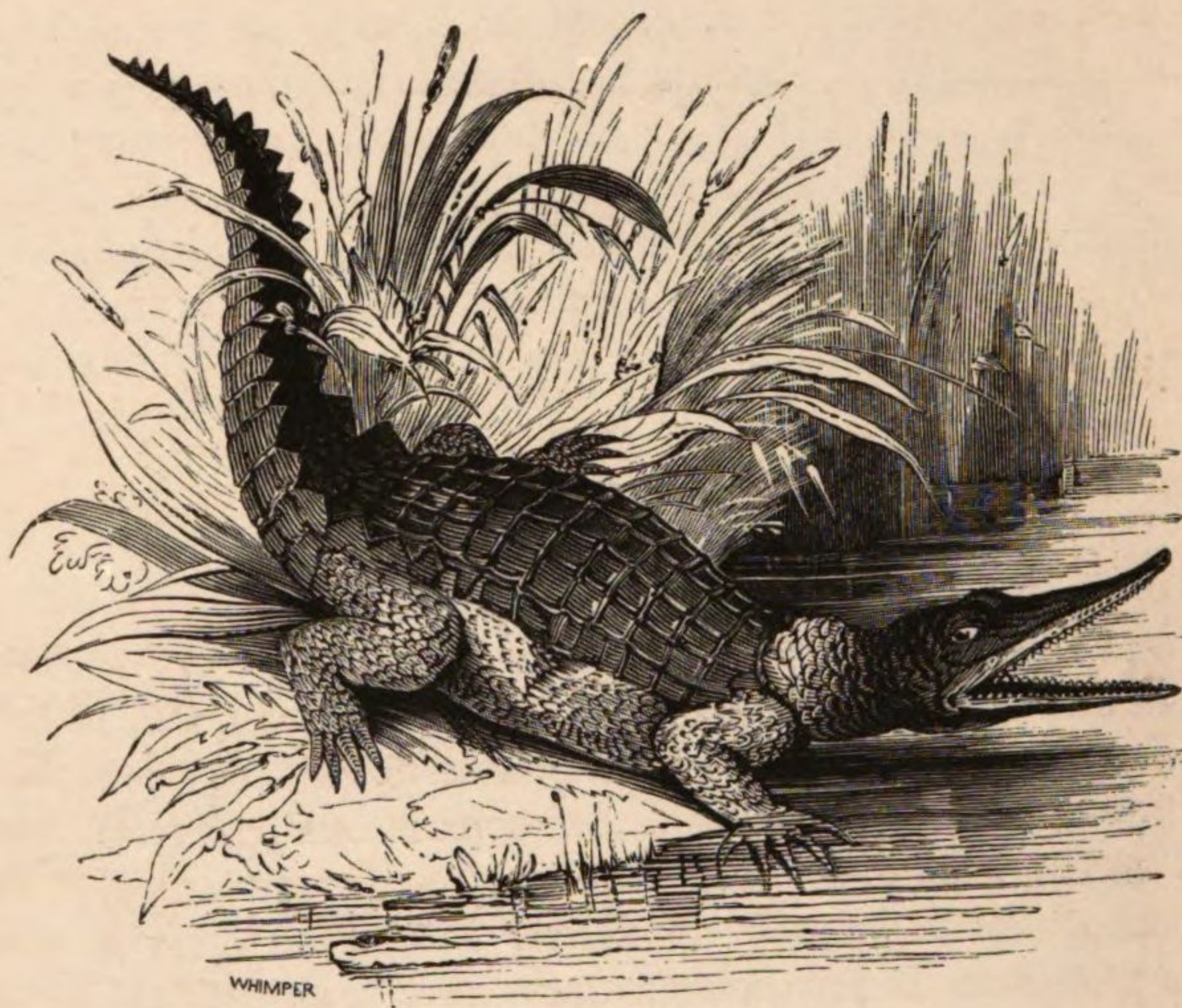
THE Hebrew name שׁוּעַל, SHUAL, which our translators render *fox*, may with greater propriety be rendered *jackal*. Dr. Shaw, the celebrated traveller, considers the *jackals* to be the animals intended in the account given in Judges, of Samson's method of punishing the Philistines. His observation is this: “As these are creatures by far the most common and familiar, as well as the most numerous of any in the eastern countries, we may well perceive the great possibility there was for Samson to take, or cause to be taken, three hundred of them. The *fox*, so called, is rarely to be met with, neither is it gregarious.”

The name SHUAL is derived from a word signifying concealment, and which is very descriptive of *jackals*.

which hide themselves in *holes underground* in the day-time.

The jackal is larger and taller than the fox ; the head is above of a fox-red colour ; the upper lip is white on each side of the nose, and the throat is of the same colour ; outwardly, the ears are fox-red, inwardly, white ; the neck and back are all over of grey-yellow ; behind the neck and on the back is a large marking of dark grey in the form of a lancet, and pointing to the tail ; the tail is straight and more bushy than that of the fox, and it is of a greyish-yellow ; it is eleven inches in length, and the body about thirty.

Some think that the jackal is an animal betwixt the dog and the wolf ; in familiarity it resembles the former, and in ferocity the latter. Jackals in their natural state associate in packs ; during the night they hunt, in full cry, the gazelle and other animals of the antelope tribe : they devour poultry and lambs, ravage the streets of villages, and will even destroy unprotected children : when they cannot meet with any live prey, they dig up the dead bodies of human beings. When once accustomed to feed on human flesh, they will follow caravans and armies, and run from country to country : their appetite is the most vehement, so that they will feed on the driest leather or infectious flesh, and on animals in a state of the most loathsome putridity : their howlings in the night are loud and hideous, for when one begins the whole join in one



THE CROCODILE.

general yell. Is not the jackal an emblem of the man who is under the power of loathsome and ungovernable lust?

THE CROCODILE.

תָּן, THAN. *Mournful sound.*

ISAIAH, XXXV. 7.—“*The parched land shall become a pool, and the thirsty land springs of water: in the habitation of dragons, (or crocodiles,) where each lay, shall be grass with reeds and rushes.*”

As the *crocodile* is peculiarly an inhabitant of the wilderness, frequenting rivers in the vicinity of desert places far from man, and in little danger of being disturbed by human beings, the name rendered by our translators in the preceding passage *dragons*, may with far greater propriety be rendered *crocodiles*. This also is the case in the following prophetic passages. Thus it is said of Babylon and its desolations: Isaiah, xiii. 22: “And the wild beasts of the islands shall cry in their desolate houses, and dragons (or *crocodiles*) in their pleasant palaces.” When we think that the crocodile delights in unfrequented regions, it appears most likely that he would choose the ruins of old deserted towns and cities situated near lakes and rivers. This was strictly the case with Babylon when in ruins, as

the adjoining country was changed into a complete marsh, in consequence of the river being diverted from its course or channel, by the command of Cyrus. See then the force of the words of the prophet Isaiah, li. 37, "And Babylon shall become heaps, a dwelling-place for dragons, (or *crocodiles*,) an astonishment, and an hissing, without an inhabitant."

The *crocodile* belongs to the genus *Lacerta*. It has a compressed jagged tail, five toes on the fore-feet and four on the hind. It is the largest of the lizard kind. An account of one dissected at Siam was sent to the Royal Academy at Paris. It was eighteen feet and a half long; the legs were short; including the thigh and paw, only two feet two inches: the toes were armed with large claws, nearly an inch and a half long: the head was of considerable length; the mouth fifteen inches long, having twenty-seven teeth in the upper and fifteen in the lower jaw. The eye was very small in proportion to the rest of the body; the colour of the upper part of the body was dark brown, and below of a whitish citron; from the shoulders to the extremity of the tail, he was covered with large square scales, in number about fifty-two. The whole skin was defended with a kind of armour, contributing greatly to its defence. The crocodile lays eggs of the size of those of a goose to the number of about sixty, which she covers over with sand, leaving them, like the ostrich, to be hatched by the heat of the sun. They are to be met with in the rivers Nile, Niger, and Ganges, and

in many other large rivers in the southern parts of Asia, Africa, and America. It is of enormous voracity and strength; is amphibious, swims with amazing fleetness, attacks mankind and the largest animals with most daring impetuosity. Of all monsters it has the largest mouth, and moves both its jaws equally. I have been informed by a celebrated traveller, that in Egypt crocodiles differ in disposition from those of other countries, never attempting to injure human beings, so that persons may bathe near them in the Nile without the slightest danger. In Scripture, cruel tyrants and conquerors are likened to dragons or crocodiles, on account of their terrible appearance and destructive influence: (Psalm lxxiv. 13 :) "Thou didst divide the sea by thy strength; thou breakest the heads of the dragons, (*or crocodiles,*) in the waters." This alludes to Pharaoh, the Egyptian king, the enemy of Israel, and justly described as the crocodile in the waters." Powerful are the enemies of the church, and compared to the most formidable and dreadful animals which exist; but God is infinitely more powerful, and shall utterly destroy them. Therefore it is promised, (Isaiah, xxvii. 1,) "In that day the Lord with his sore, and great, and strong sword, shall punish leviathan, the piercing serpent, even leviathan, that crooked serpent; and he shall slay the dragon (the *crocodile*) that is in the sea." (Ezekiel, xxix. 3.) "Thus saith the Lord God, Behold, I am against thee, Pharaoh, king of Egypt, the great dragon (*the*

great crocodile) that lieth in the midst of his rivers. which hath said, My river is mine own."

THE MUSTARD-PLANT.

Σινάπι, SINAPI. *Pungent, hurting.*

MATT. XIII. 31.—“*The kingdom of heaven is like to a grain of mustard-seed, which a man took and sowed in his field.*”

THE *sinapi*, or mustard, in botany, is a genus of the tetradynamia siliquosa class. The calix or cup of the flower is open, the pistil arises from the cup, the petals have straight unguis, and there is a nectareous gland furnishing honey for bees, between the short stamina and the pistillum, and between the long stamina and the calix. Of this plant there are ten species; three of them are natives of Britain, namely, the *nigra*, or common mustard; the *alba*, or white mustard; and the *arvensis*, or wild mustard.

The seed of the mustard is of a hot, sharp, and biting taste. The mustard in Canaan grows much larger than in our northern climate. The Jewish Talmud mentions an instance of a mustard-plant which was so high and so large, that its branches covered a tent. It mentions another so large and strong, that its stalk was sufficient to bear a man climbing up on it; and an-



THE MUSTARD PLANT



THE MOLE.

other, whose principal branch bore three barrels of mustard-seed. In our climate we can form little idea of the rapidity of the growth of plants in warm climates which are annual, or biennial ; in one season they will grow to the height of thirty or forty feet.

Our Lord represents the mustard-plant as growing to the height of a tree, and sufficient to lodge birds among its branches ; the seed is, comparatively speaking, exceedingly small. To this seed he compares the gospel church, representing its small beginning, followed by an increase so rapid and extensive as to excite the wonder of the nations of the earth. For example, look to the church of Christ from the ascension of our Lord to the death of the disciple St. John, and we witness a rapidity and extent of increase, connected with consolidated strength, altogether unparalleled. The mustard-seed is also illustrative of the growth and increase of grace in the hearts of saints.

THE MOLE.

חָלָל, CHALED. *To creep into.*

LEVIT. XI. 29.—“ *These shall be unclean unto you among the creeping things that creep upon the earth : the weasel, (or mole).*”

In eastern nations the present name of the mole is

khuld, which is evidently the same word as the Hebrew *choled*. This word, which signifies to creep underneath, is most correctly descriptive of the natural habits of the mole, which *creeps into*, and *burrows* underneath the ground. What our translators render *weasel* in the verse introduced above would, with much greater propriety, have been rendered *mole*.

The zoological name of mole is *talpa*, and it is a genus of diminutive quadrupeds belonging to the order of *feræ*. This animal has six fore-teeth in the upper jaw, and eight in the under; and it has one large dog-tooth, and four smaller ones. There are two species of moles; the first is the *caudata*, or common mole, having a tail, and five toes on each foot; it feeds on worms, and by raising the earth, infests gardens and cultivated grounds; the fur is exceedingly smooth and fine; its feet are formed for digging; its eyes are so small as even to be observed with difficulty; hence believed by the vulgar to be blind. The second species is the *ascatica*. It has no tail, and only three toes on each foot. It is a native of Siberia.

The name of this diminutive quadruped is only used in Scripture about three times. It is used twice as an unclean creature, and therefore forbidden to be eaten, by the Jewish law. And it is used in Isaiah, ii. 20, on the subject of idolatry, and where it is predicted that men should cast away their idols with contempt, and throw them to the moles and the bats: "In that day a man shall cast his idols of silver, and



THE SYRIAN DOG.

his idols of gold, which they made each man for himself to worship, to the moles and to the bats." This language is employed to show the contemptible nature of idols, and the deserved abhorrence in which they should be held, and should be looked upon as insignificant as those worms and insects which are the food of moles. Lord, hasten the time when all idolatrous nations shall thus view their vile contemptible idols, and cast them to the moles and the bats!



THE SYRIAN DOG.

כלב, CHALEB. *Fast holding.*

PSALM LIX. 6.—“*They make a noise like a dog, and go round about the city.*”

ACCORDING to the Linnæan system of animals, DOG includes household dogs of all descriptions, such as mastiffs, hounds, terriers, lapdogs, curs, &c. The genus, or general class in which all the different descriptions are comprehended, is thus described by naturalists. The head is flat on the crown, with a lengthened snout; the claws are long, a little curved, and not retractile; that is, the dog has not the power of drawing them in, or darting them out, like the cat or the tiger: the females produce many young at once, and these are blind, and in other respects, not quite formed

at birth ; in about two years most of them attain to full maturity, and the general duration of their life seems to be between fourteen and twenty years.

Though the characteristic features, or marks of domesticated dogs are the same in all countries, there is an amazing difference in their shape and size : see the difference in form betwixt the spaniel and the mastiff ; and the difference in size betwixt the lapdog and the magnificent dog peculiar to Newfoundland.

This article is headed by “ *Syrian Dog.*” All the difference betwixt the Syrian dog and other domestic dogs is in their outward form, not in their dispositions, manners, and habits, therefore a description of a domestic dog in Britain will answer to a domestic dog in Syria.

In many respects the dog is the most remarkable of quadrupeds ; in affection, kindness, fidelity, and sagacity there is no irrational animal in the creation of God worthy to be compared to it. In a most wonderful way it conciliates and secures the affections of man. Look to the mutual regard, fellowship, and almost friendship of a shepherd and his dog. This faithful animal will endure any hardship for his master, and will fight for him with heroic and determined valour. When his master dies, he will utter the most lamentable wailings, and has been seen stretching himself in grief inconsolable on his deceased master's grave. And how conspicuously his fidelity appears, and which actually renders him a pattern to man ! At

night he is the trusty guard of the house committed to his charge, and a thousand thieves will not prevail upon him to abandon his post. It is really curious to see him, like a watchful centinel, going his regular rounds, while he scents strangers at a great distance, and by his loud and continued barking informs them that he is upon his duty, and thus warns them not to approach: if the enemy should attempt to attack his territory, he becomes fierce, and without the slightest fear of danger falls upon the foe, and fights with the most determined vigour.

While all this is true, the dog was held in great abhorrence by the Jews, and is so to the present day by the Mahometans. It is proper to inquire, why is it spoken so unfavourably of in Scripture? In its wild state, its dispositions are the most blood-thirsty and voracious; they are among their own species wrangling and quarrelsome, and in their battles most furious and determinate. The libidinous filthiness of the dog too is proverbial, as being the subject of the most ungovernable sensuality. The dog was besides one of the gods of the idolatrous Egyptians; it is therefore evident that for these reasons the dog is spoken of in Scripture in the language of aversion, and wicked men, on account of various wicked and unclean propensities, compared to dogs; hence we read, (Rev. xxii. 15,) "For without are dogs, and sorcerers, and whoremongers, and whatever loveth and maketh a lie." False teachers are called *dogs*, because inclined

to abominable courses ; they are called *dumb dogs*, because they refuse to instruct and warn ; they are called *greedy dogs*, because of their inordinate and covetous attachment to earthly things, Isaiah, lvi. 10, 11.

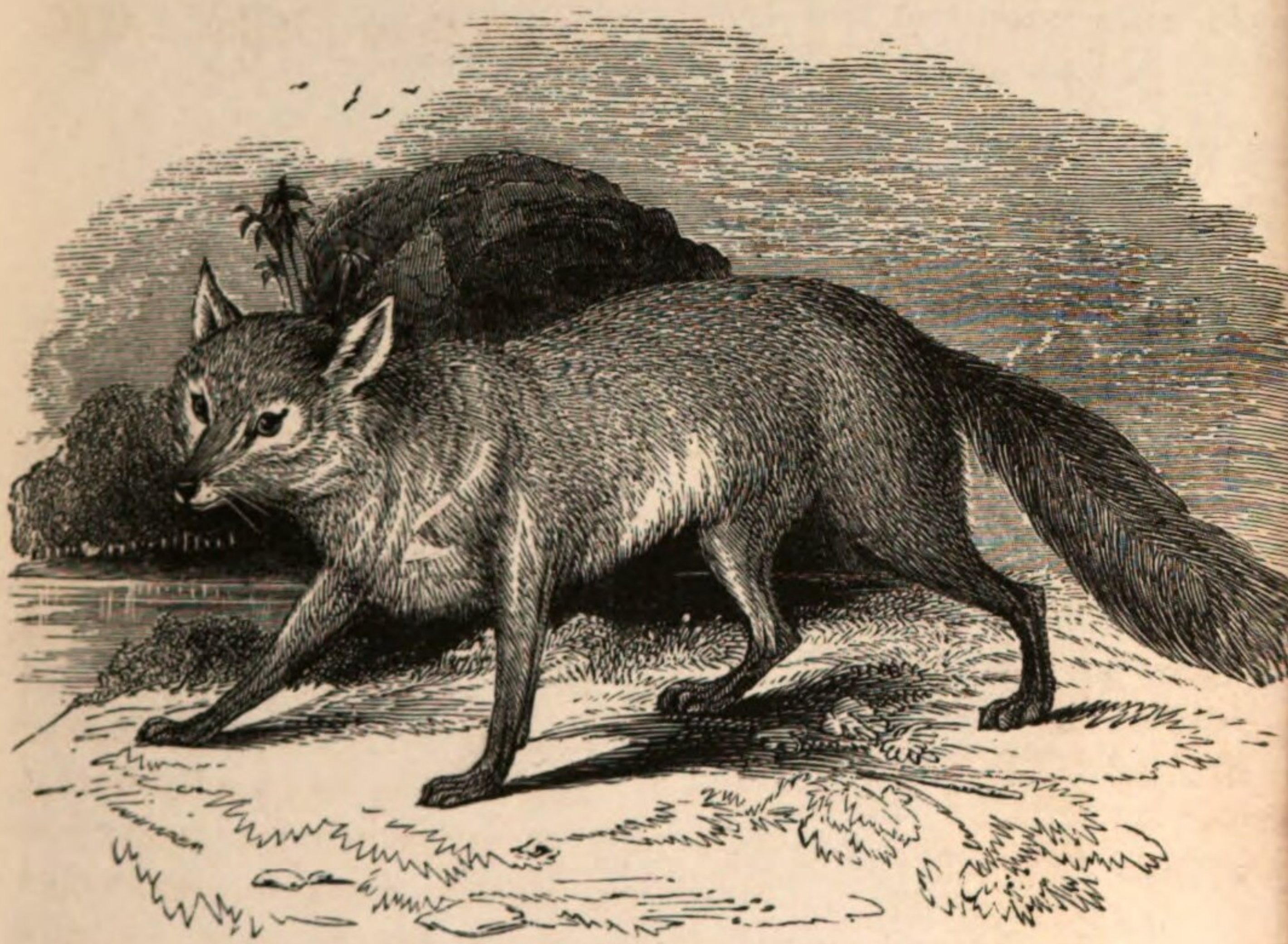
THE SYRIAN FOX.

שׁוּעַל, SHUAL. *A hollow place.*

SONG II. 15.—“ *Take us the foxes, the little foxes that spoil the vines ; for the vines have tender grapes.*”

ALREADY a description has been given of the jackal in a preceding part of this work, which animal is considered by some as the Syrian fox. Volney, the celebrated French traveller, says, “ that in Syria the wolf and the real fox are very rare.” But as it is not probable that the jackal is always to be meant when the name FOX appears in the Scripture, we are certainly warranted in giving some description of the *fox*, as more generally understood.

The fox is an animal of the dog-kind ; it resembles in form the common dog, and in size the spaniel : its tail is straight, bushy, and with a white tip ; it has a broad head, a sharp snout, a flat forehead, eyes obliquely placed, ears sharp and erect, and its body well covered with hair : it is found in all the northern



THE SYRIAN FOX

and temperate regions of the globe; it is remarkable for its smell, by which it is so easily traced and followed by hounds accustomed to the pursuit, over extensive tracts of country.

The fox is proverbial for his cunning, deriving greater benefit from his craft than from his courage: he chooses his habitation and prepares his bed under hard ground, in brakes, woods, or coppices: he is careful to contrive proper outlets to escape from danger: his abode is generally near the habitations of men, in the neighbourhood of some farm-yard or village, whither he can resort, when all is quiet, to supply himself with poultry. His manner of attacking, killing, and carrying off his prey, all betokens the most surprising caution, secresy, and craft: he is a most adept and successful thief, and seldom makes a fruitless expedition. This animal profits much by experience; if he is ensnared by a favourite lure in the days of his inexperienced youth, he can never afterwards be caught by the same expedient; he seems to smell the very iron of the trap, and carefully avoids it. O that our youth, morally considered, made a similar use of their youthful falls, and that ever afterwards they carefully shunned those snares by which their character, usefulness, and salvation have been exposed to danger.

In Scripture, false prophets and teachers are compared to foxes. Like them they are crafty, they are obstinate in their evil and devious courses; the breath of their corrupt doctrine is offensive, and they ma-

liciously hate such as oppose them : (Ezekiel, xiii. 4 :)
 “ O Israel, thy prophets are like foxes in the deserts.”

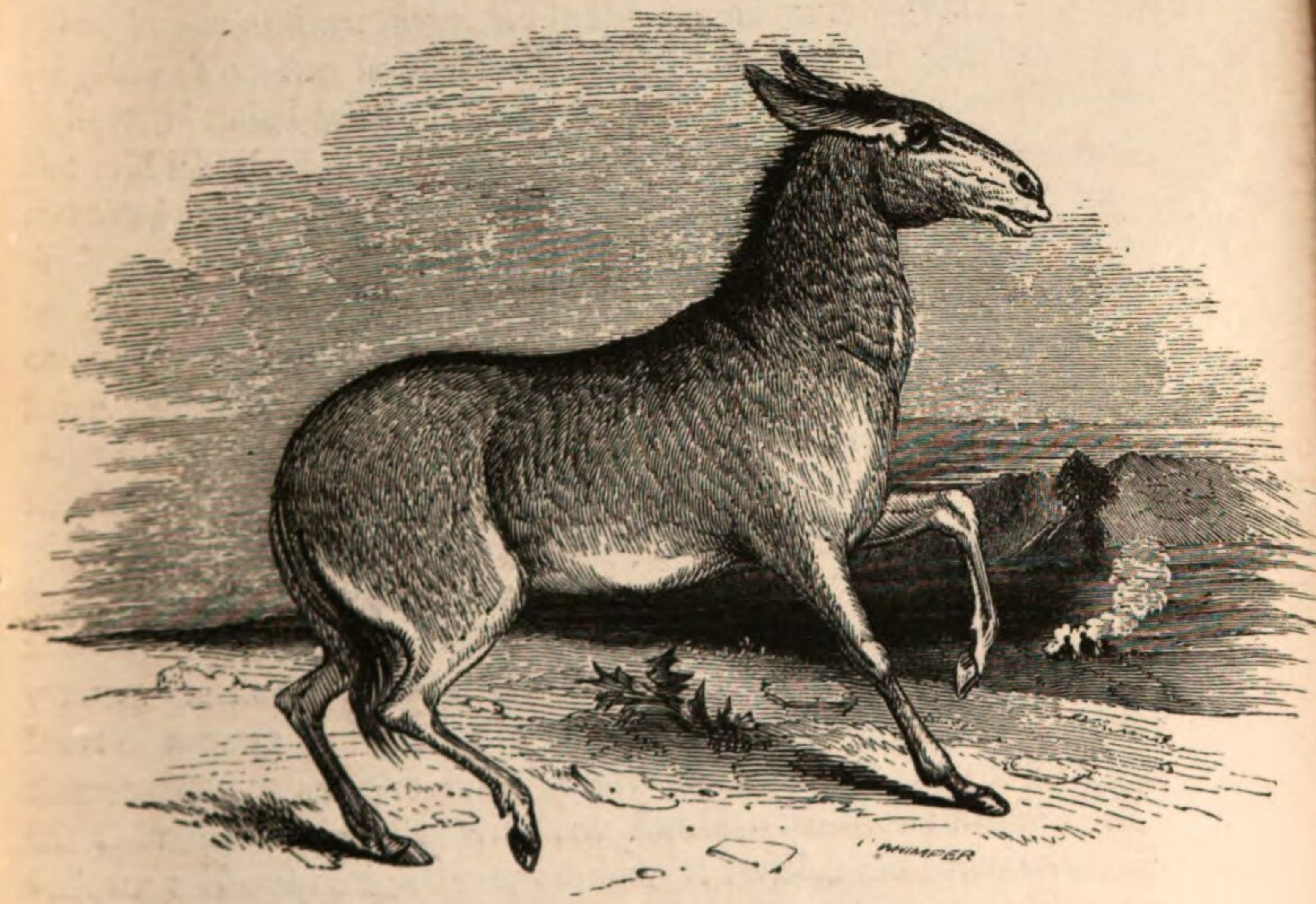
THE WILD ASS.

א'רדא, OREDIA. *Braying.*

JOB, XXXIX. 5.—“ *Who hath loosed the bands of the wild ass.*”

IN Scripture there are three names given to the ass. That which is given to the ordinary kind is *chamor*, signifying *turbulence* ; that which is applied to the zebra, a species of wild ass, namely, PARA, signifying *to break loose* ; the third is ORUD, signifying *braying*, which is applied to wild asses. This name occurs in Dan. v. 21 ; what is there translated the beasts of the field is, in the original, OREDIA, or wild asses.

From the very diminutive specimen of the ass in our northern climate, we can form no idea of the loveliness, the elegant proportion, the liveliness, and the exceeding agility and swiftness of this wild but superior animal. In many parts of Asia, in its native wilds, it is remarkable for beauty and vivacity. It is chiefly found in its natural state in the dry and mountainous deserts of Tartary, and in the southern parts of India and Persia. In ancient times it was common in parts of Syria and Arabia. It stands much higher



THE WILD ASS.

on its limbs than those which are domesticated, and, in proportion, its legs are much more slender. Its hair is very fine, light in colour, soft and silky. Wild asses live in small herds; they are timid and watchful; one of their number acts as a leader, and in an eminent degree they possess the senses of smelling and hearing. The food in which they chiefly delight are bitter lactescent herbs and the wild plants of the desert.

In Genesis, xvi. 12, the Ishmaelites are compared to *wild asses*, to represent their free, wandering habits, and also their ungovernable, lustful, restless, wild, and savage temper and dispositions: "And he," namely, Ishmael, "will be a wild man;" in the original, a man like a wild ass; "his hand will be against every man, and every man's hand against him." How wonderful! to the present day, this description is exactly applicable to the wild, wandering Arabs; those tribes which are the descendants of Ishmael—man in his natural state, under the dominion of passions which have never been restrained or subdued by grace: (Job, xi. 12:) "For vain man would be wise, though man be born like a wild ass's colt."

WHITE ASS.

אָטון, ATUN. *Strength.*

JUDGES, v. 10.—“*Speak, ye that ride on white asses, ye that sit in judgment and walk by the way.*”

THE most beautiful specimen of asses is the ATUN, or *white ass*. Calmet says, that it is the immediate descendant of the *wild ass*, or *onager*, and is much valued by the great men of the East, and eagerly sought after for their own personal dignity and accommodation. Such is the price of these lovely and elegantly proportioned creatures, that common people are unable to procure them, and the possession of them is therefore restricted to the great and wealthy. Some writers have stated that the genuine race of white asses is peculiar to the vicinity of the river Euphrates. The white of this comely animal is of a silvery colour, contributing greatly to its noble appearance, and therefore so suited to the imposing and graceful procession of ancient eastern princes. In Judges, xii. 13, 14, we read of one of the judges of Israel, Abdon, a Pirathonite: he had forty sons and thirty nephews that rode on threescore and ten ass colts, that is, *white ass colts*. This furnishes some idea of the splendour and dignity maintained by Abdon, the judge of Israel. The costly present which the opulent and holy patriarch Jacob gave to his brother Esau, included twenty



THE WHITE ASS.



THE CORMORANT.

she asses and ten foals of this superior race. (Genesis, xxxii. 15.) To one of the same species the dying Jacob alluded when he pronounced the blessing on Judah, and described him as "binding his foal unto the vine, and his ass's colt unto the choice vine." (Genesis, xlix. 11.) The words *ass's colt* in the original, are the son of the *atun*, or white ass. David had, as one of the appendages of royalty, a stud of *white asses*. Therefore we read, (1 Chron. xxvii. 30,) that over the *atunuth*, or white asses, was appointed Jehdeiah the Meronothite. Such was the astonishing wealth of Job, that he possessed a thousand she asses, after he had been raised from the depths of poverty, suffering, and disease, to an elevation of power, wealth, and glory, far exceeding that which he originally enjoyed. (Job, xlii 13.)

CORMORANT.

שָׁלַח, SALACH. *To cast down.*

LEVIT. XI. 13, 17.—“*And these are they which ye shall have in abomination among the fowls, the little owl, and the cormorant, and the great owl.*”

THIS bird is only twice mentioned in Scripture, in Leviticus, as above, and in Deut. xvi. 17. The word HAATH, which in our version of Isaiah, xxxiv. 11, is

rendered *cormorant*, should have been rendered *pelican*. The cormorant is a large sea-bird ; it is of the order of the *anser*es, or goose kind, and called by naturalists *corvus aquaticus*, or sea-raven. Among the Jews this bird was unclean : it is in length about three feet four inches, and about four feet two inches from tip to tip of its extended wings ; the bill is about five inches long ; the base of the lower mandible is covered with a naked, yellowish skin, which extends under the throat, and forms a kind of pouch, or bag. As to its colour, its back is of a deep dusky brown, with a mixture of a greenish gloss ; the feathers of its belly are white ; its tail is in length about a hand-breadth and a half ; its legs are black, thick, and flattish, and its toes are joined together by a membrane, in the manner of a duck ; it builds its nests on trees or in rocks ; it lives on fish, and with great violence darts on them in the water ; its appetite is most voracious, while there is probably no carnivorous bird so disagreeable in its smell, or so hateful and disgusting in its habits as this. Is not this unclean and hateful bird a just figure of the vile sensualist, who is bent on the gratification of his carnal appetites and lusts ?



THE DATE PALM-TREE.

THE PALM-TREE.

תמר, TAMAR. *Straight, or upright.*

SONGS, VII. 7.—“ *This thy stature is like to a palm-tree.*”

FROM the united testimony of the most learned naturalists, from Herodotus to Linnæus, the palm-tree is the most remarkable of all trees. In the appendix of Linnæus, it belongs to a separate class. How noble in its height ! when full grown, in the climate and soil suited to its nature, it reaches the height of an hundred feet. Its shape is peculiar, beautiful, and well proportioned, and is entitled to be pronounced the most beautiful tree within the compass of the vegetable kingdom. The accompanying plate fully corroborates our account of the noble and imposing appearance of this far-famed tree. It consists of one stalk rising from the root to the summit ; it has no branches, and yet its beauty is not thereby affected or impaired. In our country and climate, we can with difficulty form the idea of a tree being beautiful and well-proportioned without branches ; but such is the case. Leaves supply the place of branches, and these are at a distance from the root, and on and near the summit of the tree : the leaves are in length from six to eight feet, and from the elegance of their form and arrangement, have the appearance of a diadem with which the tree is crowned.

It hath male and female flowers on the same plants in some species, and in others, in different plants. The stalk or stem of this tree is full of rugged knots, which are the marks of those spots from which the decayed leaves fall down, and which are never replaced: the trunk is not solid like the generality of other trees; it resembles the cane, the centre being filled with pith, while the outer part, as the tree advances in age, gradually becomes ligneous, or woody. Of the class to which the palm-tree belongs, there are fourteen species, of which the chief are the palm-tree, or date, the coconut-tree, the macaw-tree, the cabbage-tree, and the dragon-tree.

The fruit of the palm-tree is called *date*, it grows in clusters below the leaves, and is of a taste sweet and agreeable. On account of the uses to which this tree is applied, and the variety of substances which it produces, it may justly be pronounced without a parallel. In the songs of eastern countries, it was celebrated for useful purposes, amounting to three hundred and sixty uses to which the trunk, roots, branches, leaves and fruit were skilfully applied. Travellers tell us, that a very considerable proportion of the inhabitants of Egypt, Arabia, and Persia subsist on its fruit. Its medicinal virtues have been also extolled. Even the leaves are turned to many useful ends, such as the making of couches, baskets, bags, mats, and brushes. The stems of the leaves are employed in making cages for poultry, and fences for gardens.

Even from the fibres of the stems, thread, ropes, and rigging are formed. A spirituous liquor is prepared from the sap. The body of the tree furnishes fuel; and from one variety of the palm-tree meal has been extracted. Several parts of the Holy Land abounded with the palm-tree. Jericho is called (Deut. xxxiv. 3) "the city of palm-trees." The palm-tree prevails in Egypt and Barbary. In thirty years after it is transplanted, it reaches the meridian of its maturity, and continues so for seventy years, after which it gradually declines, and about the age of two hundred years, expires.

Solomon built a city in the wilderness, (1 Kings, ix. 18,) which was named *Tadmor*, and by the Romans, *Palmyra*, from the number of palm-trees which grew around it.

Palm-trees by the ancients were esteemed symbols of victory; hence the saints in heaven are represented as having palms in their hands. (Rev. vii. 9.) In Jer. x. 5, idols are represented by palm-trees, as having no motion, and being upright as so many logs of wood. Saints are compared to the palm-tree, on account of their spiritual beauty and fruitfulness: (Psalm xcii. 12 :) "They shall flourish like the palm-tree, and grow like the cedar of Lebanon."

THE SCREECH-OWL.

לילית, LILITH *Night.*

ISAIAH, XXXIV. 14.—“ *The screech-owl also shall rest there, and find for herself a place of rest.*”

UNDER the genus OWL, there are no less than twenty-six species, or varieties. Owls are nocturnal birds of prey; their head is large in proportion to the rest of their body; their eyes too are large and prominent; their skull is thick, light, with numerous cavities; their outer toe may be directed forward or backward at pleasure; and from the softness of their feathers, they make little or no noise during their flight: their eyes are so constructed, that they can see more clearly in the dusk of the evening than in the bright glare of day; they have the power of shutting out or admitting the light, by the contraction or dilation of the pupil of the eye. It is a singular fact, that though none of the nocturnal birds of prey are materially injurious to man, yet almost in every country and age they have been looked upon by the vulgar and superstitious as creatures of evil omen, and as the heralds of death!

The principal characters of the owl are the following: they are bill-hooked; nostrils oblong, covered with recumbent, setaceous, that is, strong and bristly



THE SOREECH-OWL.

feathers ; head, eyes, and ears large ; the tongue bifid, or divided into two, and the outer toe moveable backwards or forwards.

The scientific name of the screech-owl is *strix flammea* ; it has black and white spots upon the shafts of its feathers, and the breast and abdomen are white ; its plumage is remarkable for its downy softness and uncommon elegance : it is found in most countries in Europe, in North and South America, in Persia, Hindostan, Australia, and the deserts of Tartary : it weighs about eleven ounces ; is in length about thirteen or fourteen inches, and from tip to tip of the outstretched wings, three feet. In Europe, it chiefly frequents inhabited districts, and without any formal construction of a nest, it deposits from two to six eggs in the hole of a wall, under the eaves of buildings, or in a decayed tree. While the young remain in the hole which forms their home, the parents go out alternately in quest of food ; they are seldom absent more than five minutes, when they return with game in their claws. When the screech-owl flies or alights it pours forth sad, melancholy, and sharp sounds, which, in the vicinity of church-yards, or ancient ivy-clad ruins, fill the minds of the vulgar with awe, and are interpreted by the superstitious as the presage of approaching dissolution.

The complete ruin of Babylon, once the most glorious city upon the face of the earth, is illustrated by *owls* dwelling in their desolate places. (Isaiah, xiii.

21.) Saints in the greatness of their sorrow are compared to *owls*: (Job, xxx. 29:) “I am a brother to dragons, I am a companion to owls.”

THE FROG.

צפרדע TSEPHARDEA. *Slime-croaker.*

PSALM LXXVIII. 48.—“*He sent divers sorts of flies among them, which devoured them, and frogs, which destroyed them.*”

THE frog is amphibious, living partly in the water, and partly on the land: the body is thick, elongated, moist, and covered with a few small tubercles; the colour is of a metallic brazen appearance; the tongue is short and thick; the fore-feet have four separate toes, and the hinder-feet, which are much longer than the body, are almost always palmated: their proper motion is that of leaping: they inhabit marshy places, and the borders of lakes and ponds: their food consists of insects, worms, and the fry of fishes: in five years they reach maturity, and live about twelve or fifteen. The croaking of the species called the bull-frog is remarkably loud, and in America, where this species abounds, is heard to a very considerable distance. When young frogs come to maturity, if their native pond be too thickly inhabited, they will often



THE FROG.

leave the over-crowded pond and migrate, or proceed to one less numerously inhabited: on these occasions, astonishing numbers are seen at once crossing a field or road in their way to their new habitation. Two or three acres have been seen covered with them. Frogs are capable of being tamed, and of becoming so familiar as to eat out of the hand. Some species serve for food to man, and most of them become the prey of larger animals that inhabit marshy situations. Daudin, an eminent naturalist enumerates sixteen species of *rana*, or frog.

One of the ten plagues of Egypt, in the days of Moses, consisted of innumerable myriads of frogs, which covered the whole land. (Exod. viii. 1—6.) In Rev. xvi. 13, 14, we have an account of frogs coming out of the bottomless pit, which very probably denote false teachers, who spread over nations and countries, to disseminate false notions and polluting, immoral sentiments, to the dishonour of Christ and the injury of the souls of men.

IBEX, OR ROCK-GOAT.

לַיִן, IAAL. *That which mounts.*

PSALM CIV. 18.—“*The high hills are a refuge for the wild goats, and the rocks for the conies.*”

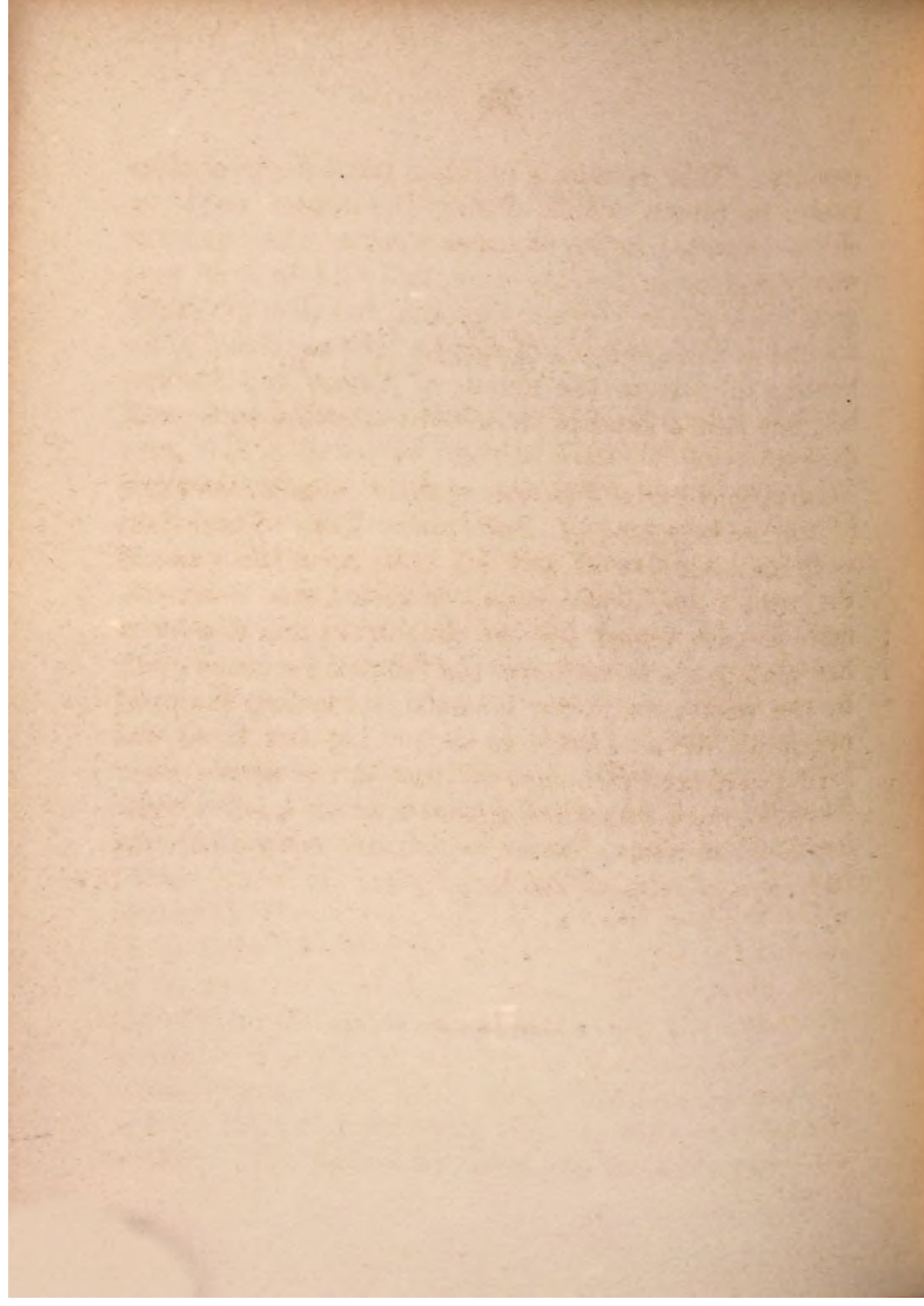
THE *ibex* is the only species of goat to which the allusion in the preceding passage can with most propriety be applied.

The description given by Linnæus of the genus *capra*, or goat, is as follows: compressed and transversely wrinkled horns in both sexes; no lachrymal vessels; a beard under the chin; hair long; tail short.

The ibex is found in several parts of Europe and Asia, as in the Alps, the Pyrenees, Carpathian Mountains, Mount Taurus, and the tracts beyond the Lena. The male resembles the common goat in outward form; the eyes are large, round, and fiery; the horns, when of a full size, are large and heavy; the beard is long and dusky; the body is short, thick, and strong, and covered with a long, but not pendant coat; the legs are slender, and the hoofs are terminated by a *salient* border, that is, a border which fits for leaping; the female is one-third less than the male, her colour less tawny, and her horns much smaller. The ibex will leap a rock fifteen feet high at three successive leaps, with an airy lightness almost resembling flying; when pursued he traverses the glaciers with amazing



THE IBEX, OR ROCK-GOAT.



rapidity. This species is found in small flocks of from twelve to fifteen, which, during the winter, reside in elevated woods: in fair summer weather, they quit the woody regions in the day-time, and feed in their progress towards the highest summits, and then gradually descend at the approach of night. The usual season for hunting them is in the month of August and September, but it is a description of sport attended with great danger.

In various parts of Scripture there is reference made to the rock-goats: (1 Sam. xxiv. 2:) "Then Saul went to seek David and his men, upon the rocks of the wild-goats,"—the *jolim*, or rock-goats. The female ibex is famed for her attachment and fidelity to her mate; hence we have the following counsel given by the wise man to the husband, respecting the partner of his days: (Prov. v. 19:) "Let her be as the loving hind and *pleasant roe*," that is, the female ibex. Thus the most important lessons may be learned from irrational animals, lessons which are essential to the happiness of relative and social life.

THE RAVEN.

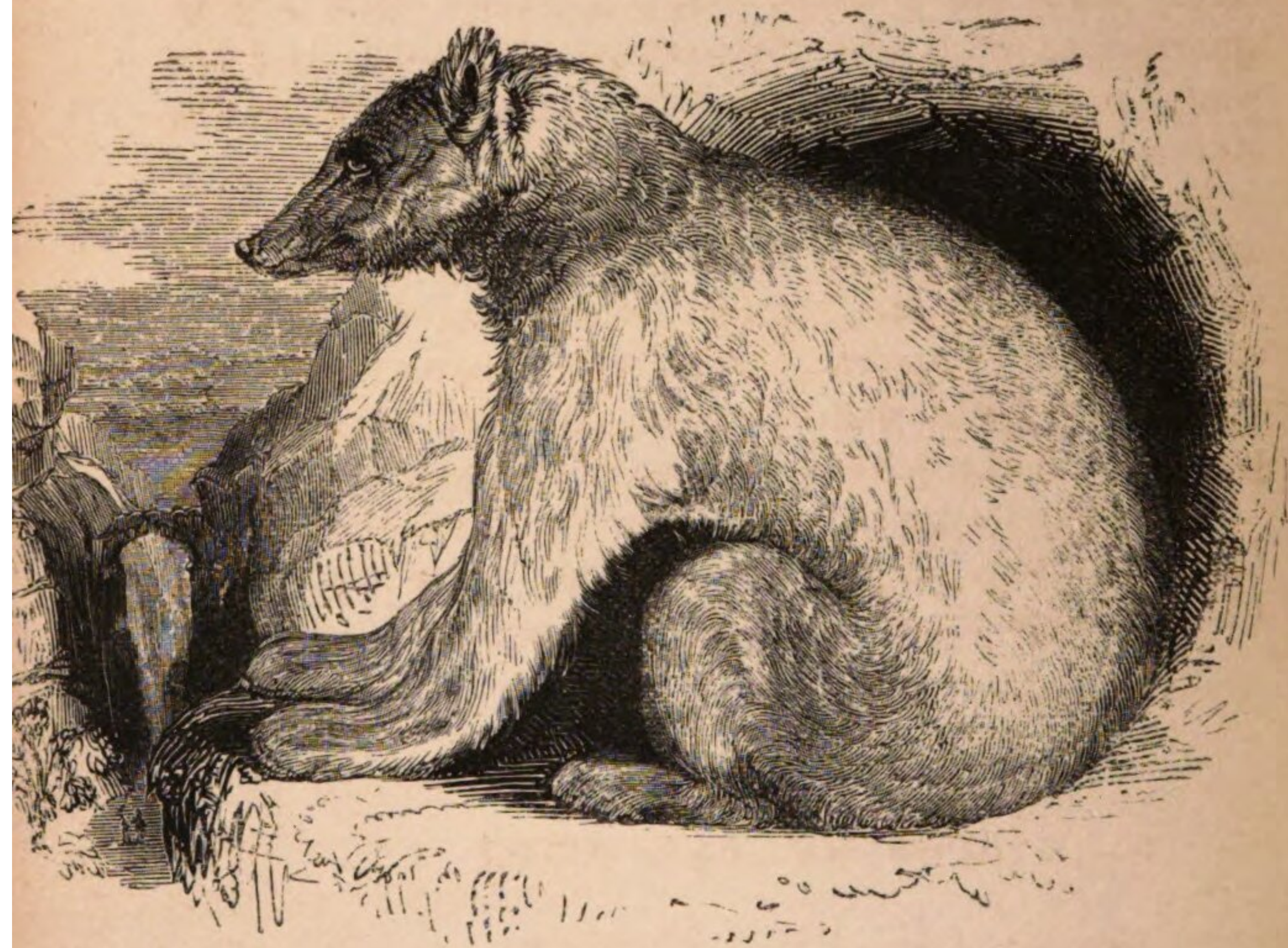
עורב, OREB. *Evening.*

GEN. VIII. 7.—“*And he sent forth a raven, which went forth to and fro, until the waters were dried up from off the earth.*”

THE *raven* belongs to that class of birds called *omnivorous*, that is, living on various kinds of food, whether vegetable or animal. It is therefore a bird of prey, and according to the Levitical law, was ceremoniously unclean : (Levit. xi. 15 :) “Every raven after his kind.” The raven is in colour of a deep black, the upper part with a bluish gloss, and the tail somewhat rounded. The young, when hatched, are whitish ; the ordinary length of the bird is about twenty-two inches and a half, its stretch of wing about three feet, and it is furnished with a strong bill and with long vigorous wings. The raven has a lofty flight, is capable of sustaining every variety of climate, and is therefore found almost in every part of the earth. In February or March they build their nests in the crevices, or in holes of walls, on the tops of deserted towers, or in the forks of large trees. Their nests consist of three distinct layers of materials ; the outermost is composed of branches and roots of shrubs, the second of the fragments of bones and other hard substances, and the third of a soft lining of grass, moss, or other soft stuffing. The female lays from two to eight eggs, of a



THE RAVEN.



THE SYRIAN BEAR

pale, bluish green colour : during incubation, the male waits upon his mate with marked fidelity, provides her with abundance of food, and relieves her in turn by taking her place ; he watches over his nest and little family with the greatest care : if he see birds of prey approaching the nest, his courage is aroused, he takes wing, soars above the invader, and darting down, strikes upon him with violence.

Noah sent forth a raven, to try if the waters were dried up from off the earth : it did not return, as it could live upon the carrion which floated upon the surface of the waters. Thus, it is a true emblem of wicked men, who will not come to Jesus, because they prefer sinful and sensual enjoyments to him.

Contrary to their nature, ravens were directed by God to nourish Elijah, the prophet, every morning at Cherith, with bread and flesh. (1 Kings, xvii. 4—6.)

THE SYRIAN BEAR.

בִּיב, DOB. *Growling.*

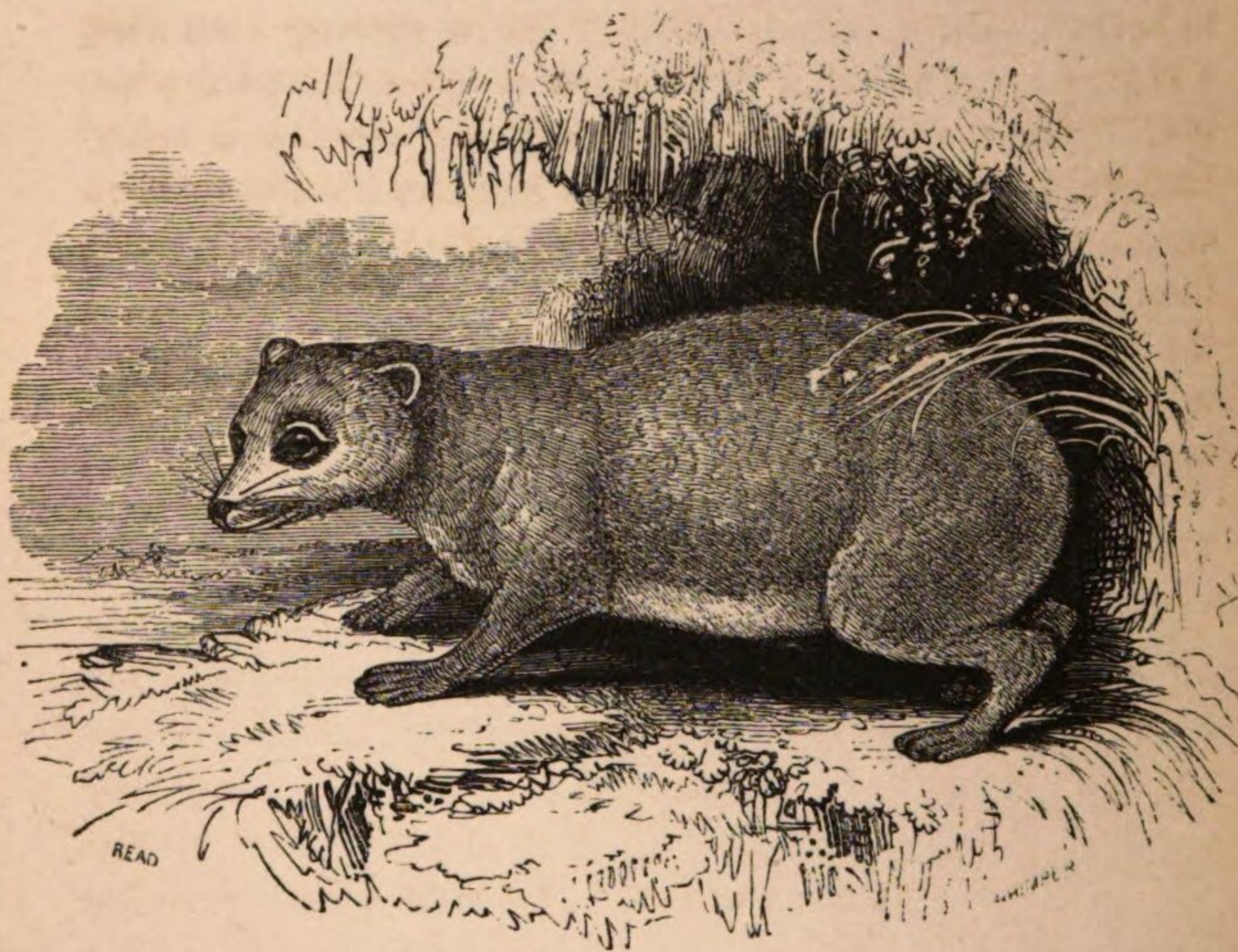
2 KINGS, II. 24.—“ *And there came forth two she bears out of the wood, and tare forty and two children of them.*”

THE characteristics of the bear species are the following : it is a ferocious beast of prey, the head long, the

eyes small, the ears short and rounded at the top ; its feet are large, and the tail is very short ; its general colour is black or brown, and its body is covered with long, shaggy hair. There is something very unsightly in the bear ; it is covered with a thick shaggy fur, and looks like a large shapeless lump. Bears vary in size ; some are about the size of a mastiff, and others as large as a small heifer. Their skull is thin but firm, and they are provided with a large supply of brain, in consequence of which they are probably so sagacious. Such is the peculiar formation of their feet, that they always tread on their heels in walking ; their claws are hooked and strong, and proper for climbing. It is said, when littered, they are blind, without hair, and no larger than mice ; they feed on fruits, honey, bees, and flesh ; they are ravenous, resentful, and subtle ; they climb trees with remarkable ease ; they are exceedingly kind to their young, and roar dreadfully when deprived of them : in winter they hide themselves, and sleep from forty days to four months, at the end of which time they are uncommonly fat, a very singular phenomenon.

In different countries the bear varies in colour ; there are, therefore, three kinds, the white, the black, and the brown ; the last, namely, the brown or Syrian bear, is the only kind found in eastern regions, and that of which the Scripture speaks. Palestine abounded in bears. One attacked the flock which David watched : with great fortitude he fell upon it and de-

The first part of the paper is devoted to a general
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THE CONEY.

stroyed it. When Elisha, the prophet, was mocked by wicked children, God was greatly displeased ; he employed two she bears as the messengers of his wrath, and in a few moments they tore to pieces forty-two of the children of Bethel. Wicked rulers are compared to bears : (Prov. xxviii. 15 :) “ As a roaring lion and a raging bear, so is a wicked ruler over the poor people.” The fury of a bear robbed of her whelps is truly dreadful ! To this God’s anger against his impenitent enemies is compared : (Hosea, xiii. 8 :) “ I will meet them as a bear bereaved of her whelps, and will rend the caul of their heart.” Blessed are they who flee to Jesus as their refuge. In his bosom they are for ever safe from the storms of divine wrath !

Rock of Ages, shelter me !
Let me hide myself in thee !

CONEY.

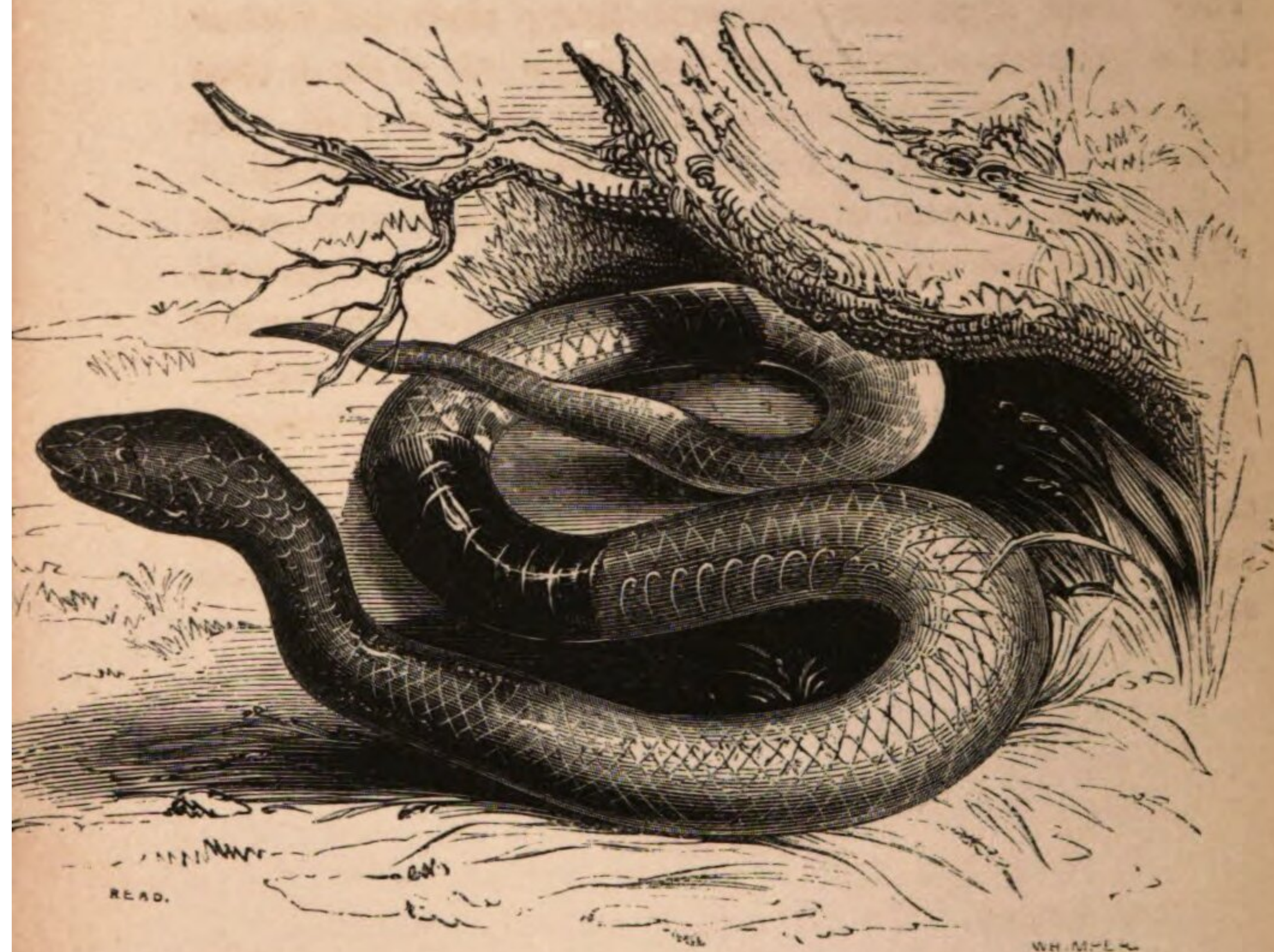
צפ, SHAPHAN. *To hide.*

PROV. xxx. 26.—“ *The conies are but a feeble folk, yet make they their houses in the rock.*”

SOME have applied the name *shaphan* to rabbits. The account which Bruce, the celebrated traveller, gives of the *coney*, or *shaphan*, clearly shows that it is improper to designate the rabbit *shaphan*, since the shape and

habits of the coney are so different from those of the rabbit. He says : " It does not burrow and make holes, as the rat and rabbit, nature having interdicted it this practice, by furnishing it with feet which are round, and of a soft, pulpy, tender substance ; the fleshy part of the toes projects beyond the nails, which are rather broad than sharp, much similar to a man's nails, ill-grown, and these appear rather given for the defence of the soft toes, than for any active use in digging, to which they are by no means adapted."

It should also be remembered, that the rabbit is not found in the Holy Land, or Syria, from which places the inspired writers generally take the names of animals which prevail in those parts of the earth with which they were best acquainted. The coney, or shaphan, as described by Bruce, is found in great abundance in Ethiopia and Mount Lebanon. This great traveller, and accurate observer of what he saw in his adventurous journeys, gives the following description of this animal : " The total length as it sits is seventeen inches and a quarter : it has no tail, and gives, at first sight, the idea of a rat, rather than of any other creature : the colour is grey, mixed with reddish brown, and the belly white : all over the body are scattered hairs strong and polished ; these are for the most part two inches and a quarter in length : the ears are round, not pointed : the upper jaw is longer than the other : it lives upon grain, fruit, and roots, and certainly chews the cud."



THE ASP.

The conies inhabit caves and the cliffs of rocks. They are gregarious, and are seen in companies of some dozens, sitting on large stones at the mouth of caves. They walk apparently in great fear; their belly close to the ground, advancing a few steps at a time, then pausing, as if considering whether all is safe. In their deportment they are mild, feeble-like, and timid.

Solomon speaks of the coney as exceedingly wise. (Prov. xxx. 24—26.) The chief example of their wisdom which he furnishes, is the place they choose for their residence; “they make their houses in rocks.” As to their bodies, they are not furnished with means of defence; but their instinctive wisdom leads them to choose a safe residence among the rocks, where they can defy even tigers and lions. Happy are they who can sing, “God is our refuge and our strength.”

THE ASP.

פֶּטֶן, PETEN. *To disturb, or make a commotion.*

DEUT. XXII. 33.—“*Their wine is the poison of dragons, and the cruel venom of asps.*”

THE asp is thus defined by Linnæus: “*Nose terminated by an erect wart; body tawny, with figured streaks, alternately distinct and confluent; beneath, steel-blue, dotted with yellow.*” It is about a foot in

length, and nearly half-an-inch in thickness: it is oviparous; and in a very little while after it bites and injects its venom death is the consequence. After the wound is inflicted slumber takes place, then a deep sleep, then death! Galen, the ancient and celebrated physician, says, he witnessed the activity of the poison. It was in the case of a criminal in Alexandria, condemned to die, whose sufferings were to be easily and speedily terminated. An asp was applied to his breast, and after it crawled there for a short time, he expired.

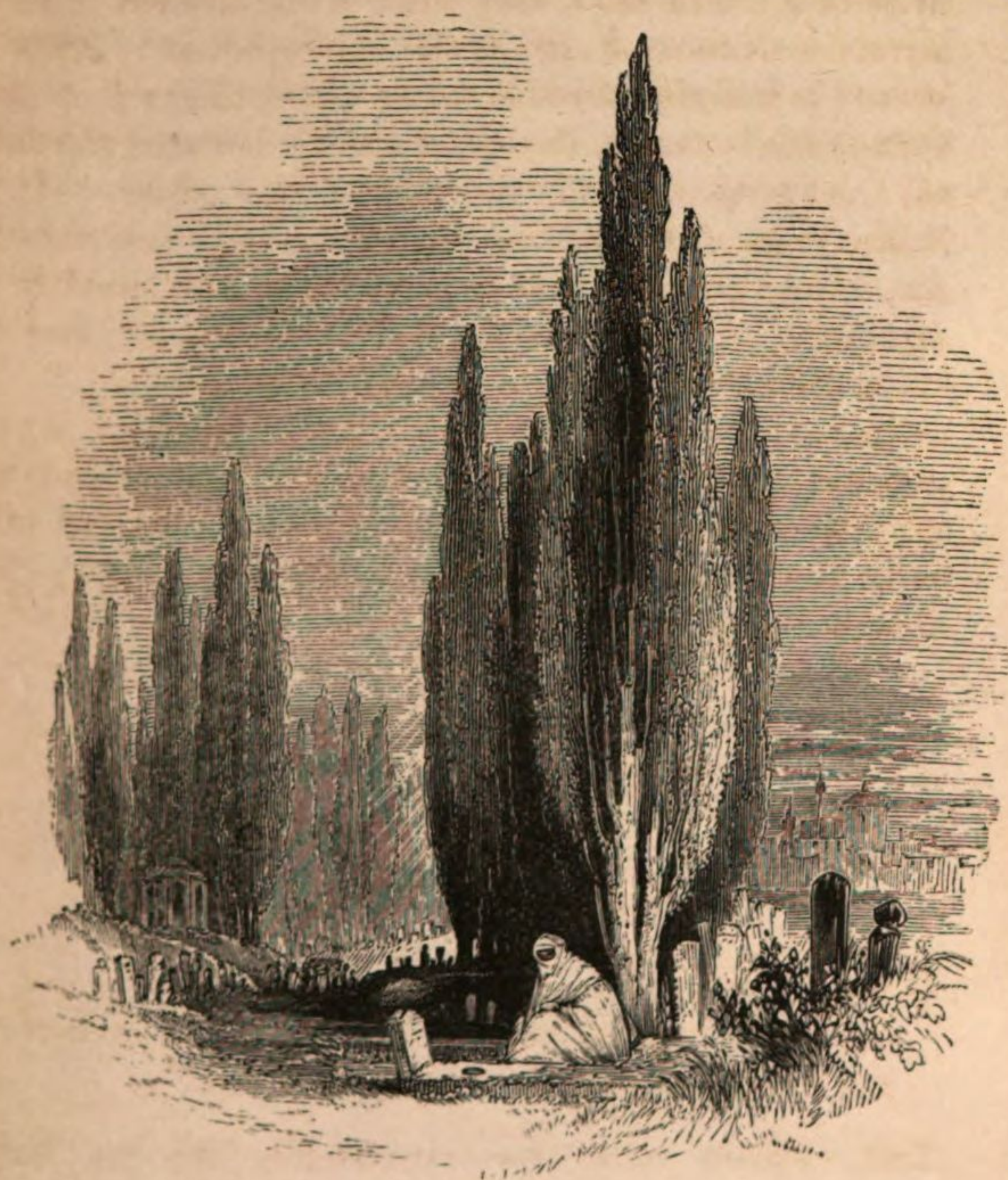
In Scripture, wicked men are compared to asps, on account of their subtlety, their malignity, and their gradual but certain murdering of themselves and others with the cruel venom of sin: (Rom. iii. 13:) "The poison of asps is under their lips!"

THE CYPRESS.

תִּרְזָה, TIRZAH. *High pole.*

ISAIAH, XLIV. 14.—"*He heweth him down cedars, and taketh the cypress and the oak, which he strengtheneth for himself among the trees of the forest.*"

THE cypress is a tree remarkable for its height, strength, comeliness, and duration. It is a genus of the *monadelphica* order. There are seven species; but the most noted is the *sempervivens*, or ever-living.



THE CYPRESS.

It is the only tree that grows towards the summit of Mount Lebanon. There, in consequence of the frost, it grows like a small oak. Pliny, the historian, mentions a species which grew on the highest point of Mount Ida, that celebrated mountain in ancient geography, situated in the island of Crete. Some of the mountains of Persia are covered with these trees. That it is natural to Syria appears from a passage in Eccles. xxiv. 13: "I was exalted like a cedar in Lebanon, and as a cypress-tree upon the mountains of Hermon."

The wood of the cypress can resist worms, putrefaction, and the influence of the elements, and lasts unchanged for centuries. The coffins of the Athenians of wealth, and the chests of the Egyptian mummies were made of this wood. The doors of St. Peter's Church at Rome were originally formed of the same materials. At the end of six hundred years they were removed by Pope Eugenius IV., and gates of brass substituted in their place, when they did not exhibit the slightest marks of decay. In the island of Candia, cypress-trees were so valuable a commodity, that the plantations were called *dos filia*; the felling of one of them being considered, as these two Latin words intimate, a *daughter's portion*.

The ancients considered these trees as possessing great medicinal properties, and that they produced such a salubrious change upon the surrounding atmosphere where they grew, by their balsamic exhalations,

that the physicians recommended patients to be sent to Candia where those trees grew in great abundance.

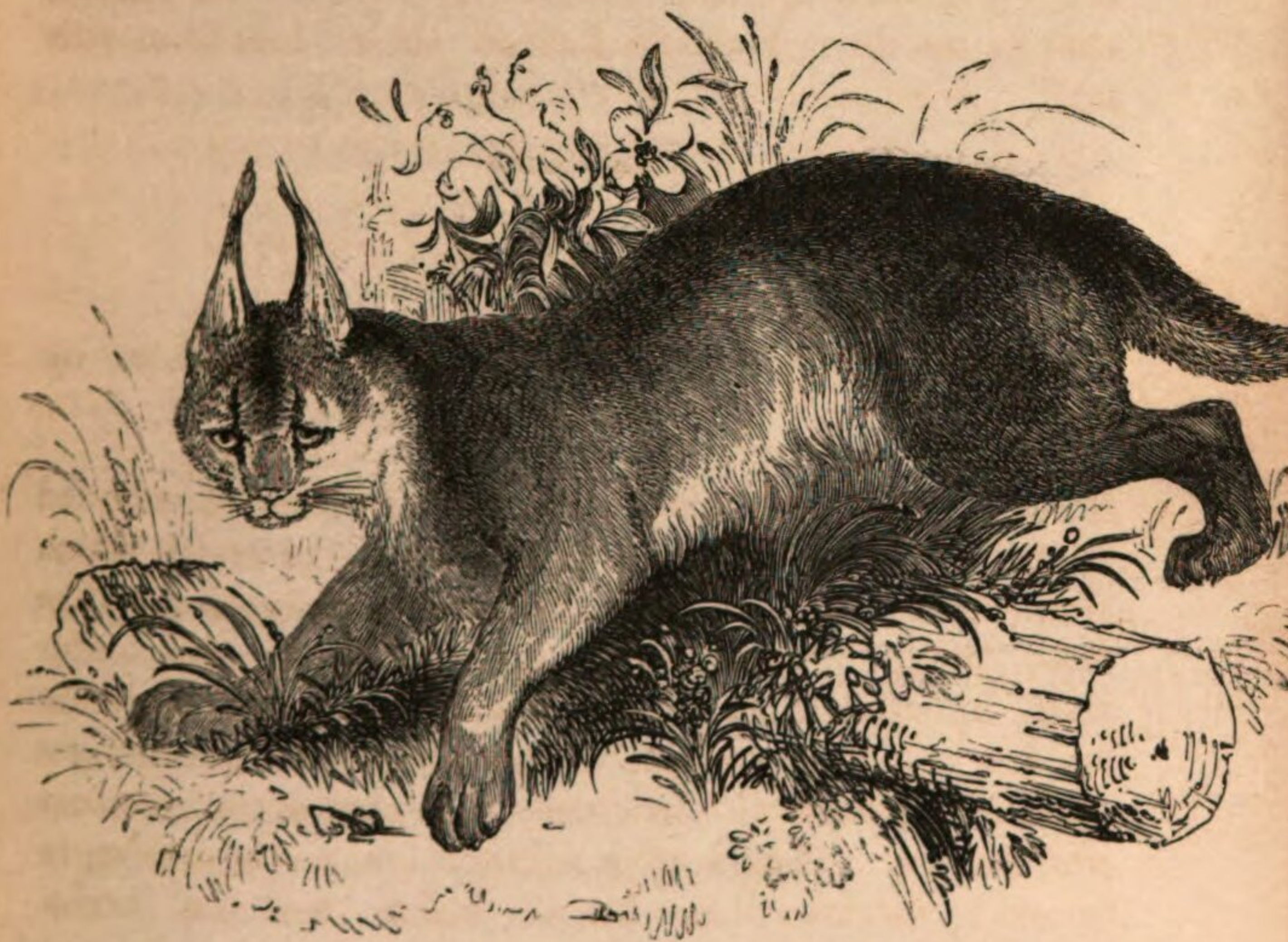
Branches of the cypress were used at funerals and doleful ceremonies. Some are of opinion that Noah's ark was made of this wood. We learn from Isaiah, that in his days, idolaters formed their idols from this tree.

THE LYNX.

ISAIAH, XXXV. 9.—“*No ravenous beast shall go up thereon.*”

THOUGH this particular wild animal is not mentioned in Scripture by name, it belongs to a genus to which frequent reference is made in the sacred oracles. The lion, tiger, leopard, and lynx belong to the order *felis*, having all the same characteristics in common. In the whole, there are twenty-five species, having a similar anatomical structure, and the same manners and habits. They lead a solitary life, never uniting in mutual defence, like beasts which feed on herbs. They seek their food alone, and are often enemies one to another.

The size of the lynx is about that of a moderately large dog, measuring upwards of four feet from head to tail, and the latter about six inches in length. The body is covered with long soft hair; the feet



THE LYNX

are thick and strong, and the eyes, which are of a pale, yellow colour, are proverbially piercing. This animal is found in Europe, America, and the north of Asia. It is considered to live for many years. It subsists by hunting, and pursuing its prey upon the highest trees; feeding on ermines, weasels, squirrels, and other animals, which are unable to escape from it. It is not satisfied with these minor creatures, but has the audacity of watching the approach of the fallow-deer, hare, and other beasts of the chase, and darting on them from the branches of trees, where it lies concealed. It seizes them by the throat, sucks their blood, after which it abandons them and goes in search of fresh game. In this respect, it remarkably resembles the tiger, which sucks the blood of its victim, and then leaves it. The sight is singularly quick, and its eyes see its prey at a great distance.

It is impossible for a scripture-moralist to think of the natural history of carnivorous wild beasts, without seeing the astonishing effect produced by sin upon the animal creation. If man had remained in his primitive innocence, there would have been nothing to hurt or destroy. Sin changes the very nature of those it contaminates. It changed angels into devils, man into a rebel against the God of heaven, and has made countless numbers of birds, beasts, and fishes, ferocious, formidable, and destructive.

May the most ardent desire of our heart be, that the reign of sin may be destroyed in our minds, and that

we may shine in the beauties of holiness, for ever and ever !

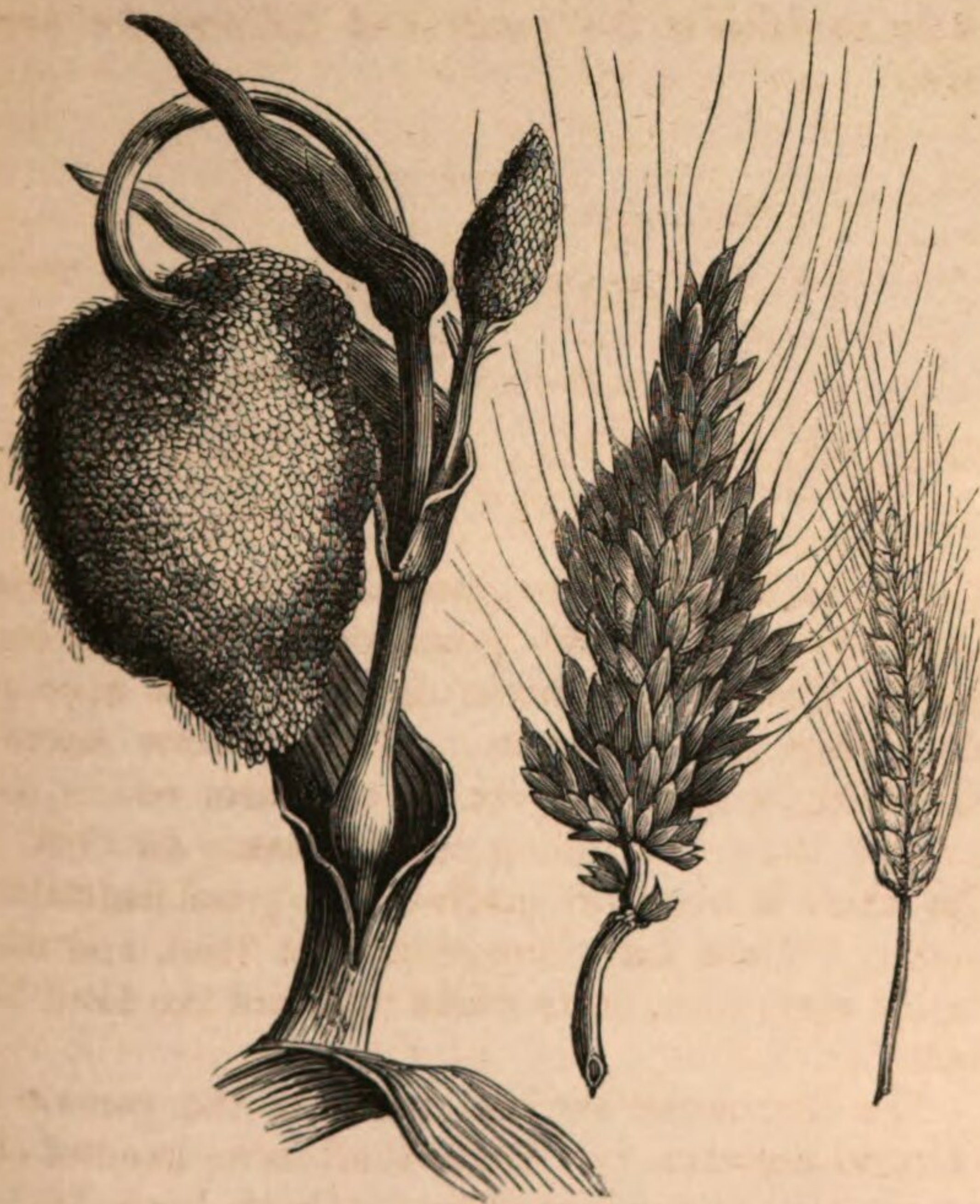
EASTERN CORN.

דָּגֵן, DAGEN. *Abundance.*

DEUT. XXV. 4.—“ *Thou shalt not muzzle the ox when he treadeth out the corn.*”

CORN, is a generic or general name for all kinds of grain which the earth produces for the sustenance of man. The Hebrew name *dagen* is most appropriate, signifying great increase. The Hebrew name *dag*, signifying a fish, is given for the same reason, as intimating their astonishing fruitfulness. In Gen. xxvi. 12, there is mention made of the great fruitfulness of corn. “Then Isaac sowed in that land, and received in the same year, an hundred fold, and the Lord blessed him.”

We may notice the use made of the generic name corn, in Scripture: “There shall be an handful of corn on the tops of the mountains.” (Psalm lxxii. 16.) This denotes the sowing of the seed of gospel truth on places spiritually barren, which afterwards proved remarkably fruitful. Believers “revive as the corn,” when they recover from spiritual decays, and flourish in divine grace. (Hos. xiv. 7.)



EASTERN CORN.



ENGLISH.

HESHBON.

WHEAT.

Following kinds of corn, or grain, are the principal ones mentioned in Scripture, namely, wheat, barley, rye,

WHEAT.

חֶטֶה, CHETEH. *To push forth.*

There is given to wheat in the inspired volume, a great number of its stems, but still more so a greater number of grains produced by each. The heathen naturalist, Pliny, gives the following account of the fruitfulness of this grain: he says, "Barley is more fertile than wheat. Nature has bestowed this quality, because by it chiefly she feeds mankind. For from one bushel, if the soil be suitable, as in Egypt, a country of Africa, a hundred and fifty bushels will be returned."

Following is the botanical description of *wheat*: It is one of the plants of the class *triandria*, and order *monogamia* in the natural system ranging under the class, *gramina*. The calyx is bivalve, and contains three florets; and the corolla is also bivalve, the one valve being bluntish, the other acute. Of this remarkable plant there are nineteen species.

There is a peculiarity in this grain. It is that on which human beings chiefly depend for sustenance in

the civilized portions of the earth. It is remarkable for its prolific qualities; and more than any other grain does it possess farinaceous richness. When we think of this we should exclaim, "O Lord, how great is thy goodness! corn shall make the young men cheerful, and new wine the maids." (Zech. ix. 17.)

Jesus is called a *corn of wheat*, because of those rich, nourishing, and lasting blessings, of which he is the author; and because of the fruitfulness of his gospel, when accompanied by the power of his Spirit: (John, xii. 24.) In Matt. iii. 12, saints are compared to *wheat*, because of their usefulness and fruitfulness in good works. In Jer. xxiii. 28, the word is likened to *wheat*, because it is the food of believing souls. They who hear, believe, and enjoy the gospel purely dispensed, are *fed upon the finest of the wheat*. (Psalm lxxxi. 16.)

MILLET.

דָּחָן, DOCHAN. *Thrusting forth.*

EZEK. iv. 9.—"*Take thou also unto thee wheat, and barley, and beans, and lentils, and millet, and fitches, and put them in one vessel, and make thee bread thereof.*"

THIS grain receives the name *dochan*, because of its amazing fruitfulness. In Latin it is called *milium*,



MILLET

signifying a thousand, as if one stalk bore a thousand grains. Here, of course, the word thousand must be taken only to indicate a great number.

Millet is a genus of the *digyria* order, in the *trian-dria* class of plants, and in the natural method ranking under the fourth order, *gramina*. The calyx is bi-valved and uniflorous. The corolla is very short, and the stigmata resemble the form of a pencil. The meal of this grain made into bread with camels' milk, oil, butter or grease, is almost the only food which is eaten by the common people in Arabia Felix.

Thus we have furnished a short description of the principal kinds of corn mentioned in Scripture. And this furnishes an animating and profitable subject for the contemplation of the pious reflecting mind. Here we see the benevolence of God in the bountiful provision which he has made for the wants, necessities, and support of the family of man. May we admire and adore, and serve a God of such benevolence and bounty.

As corn is so remarkable for fertility, may it be our hallowed ambition, constant desire, and earnest prayer, that we may be fruitful in good works, and in the graces of the spirit. Of us may it be said,—

“ There grow thy saints in faith and love,
Blessed with thine influence from above ;
Not Lebanon with all its trees
Yields such abundant fruit as these.”

MOUSE.

עכבר, ACHBAR. *Copious.*

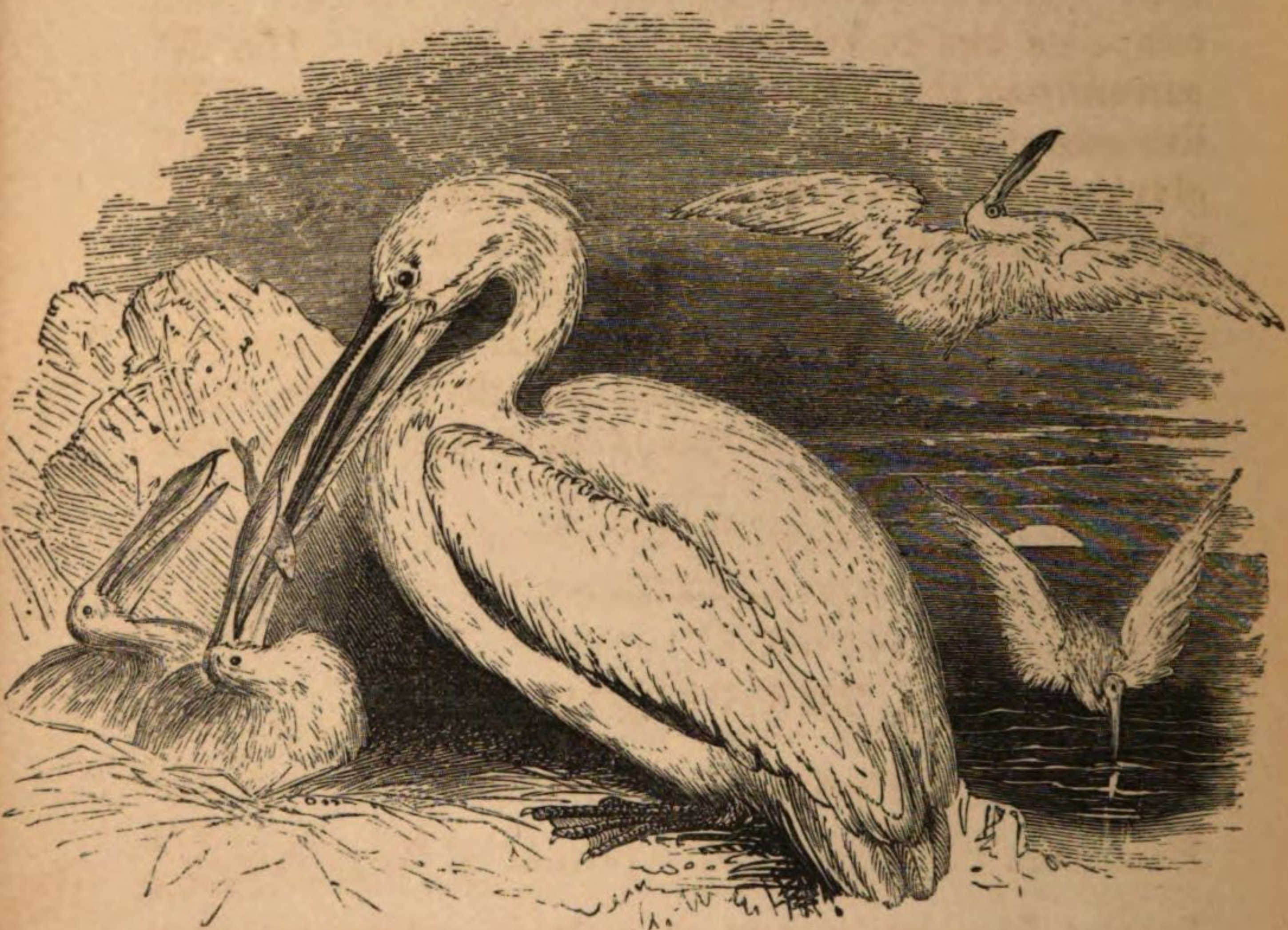
LEVIT. XI. 29.—“ *These also shall be unclean unto you, the weasel and the mouse.*”

THE mouse, according to Linnæus, belongs to the genus *mus*, of which there are twenty-two varieties. The species mentioned in Scripture is most probably the field-mouse. This animal is remarkably prolific, bringing forth young in all seasons. Were it not for this circumstance, its own weakness and its numerous enemies would soon exterminate the whole race. There are few creatures whose enemies are so numerous as the mouse; among which are the cat, the pole-cat, the weasel, the owl, and many others. The life of a mouse terminates in two or three years. Mice are diversified in their colour; some white with red eyes, others nearly black, and others spotted with white. They are easily tamed. Sonnini observes, “that Madame de Montespan, who was celebrated for her beauty, her influence, her wanderings, and her misfortunes, soothed her sorrows at the age of thirty-three, by a little coach in filagree, drawn by six white mice, which sometimes took the liberty of biting her fair hand.”

Mice are very destructive on account of their numbers. They proved a great calamity to the Philistines,



THE FIELD-MOUSE.



THE PELICAN.

during the year in which the ark was a captive in their country: (1 Sam. vi. 5.) Herodotus records, that the army of Sennacherib was ruined by innumerable multitudes of mice, which, in one night gnawed to pieces their quivers, bowstrings, and shield straps. This compelled the haughty monarch to retreat. His departure was the salvation of Egypt. This great deliverance the Egyptians preserved by their hieroglyphics, which represented the mice gnawing the bowstrings and other parts of their military weapons. Thus, we see that God can accomplish magnificent ends, by the most insignificant means. How humbling to the pride of a haughty king, that the army in which he placed his confidence should have been overcome by mice!

THE PELICAN.

תקא, KAATH. *To vomit up.*

PSALM CII. 6.—“*I am like a pelican of the wilderness.*”

IN the Linnæan system of zoology, *pelican* makes a distinct genus of birds of the order of the *anseræ*. The characteristic of this order is, to have a straight beak, with the point hooked, and furnished with a large bag beneath. The common pelican is called *onocrotalus*, and is all over of a greyish white. The

bill is of great length and hooked at the end, and has under it a loose flexible membrane reaching to the throat, which forms a bag capable of holding a large quantity of food for feeding its young. Like the duck, or goose, its feet are webbed, all the toes being joined by the membrane, thus fitting it for swimming. The bones of this bird are solid, and not hollow like the bones of other birds; and are also pellucid, or clear. It is said that the bag under their throat is so capable of enlargement, as sufficient to hold two human heads. The pelican is nearly twice the size of a swan. Pelicans haunt desert places where there are rivers, or pools, and marshy places: hence, the Psalmist compares himself to a pelican of the wilderness. The voice of this bird is harsh and disagreeable, resembling the sounds uttered by a man in great suffering and distress. On this account David compares his groaning to the voice of the pelican. In affection to their young, pelicans furnish an example even to human parents. If the nest containing their young is set on fire, they will flap their wings over the kindled nest, even at the hazard of their own lives. Would to God that parents were universally concerned that their offspring were preserved secure from the flames of Tophet! Careless parents, think of the tender care even of a pelican over her young!



THE LOCUST.

THE LOCUST.

אֲרֵבָה, ARBEH. *To multiply.*

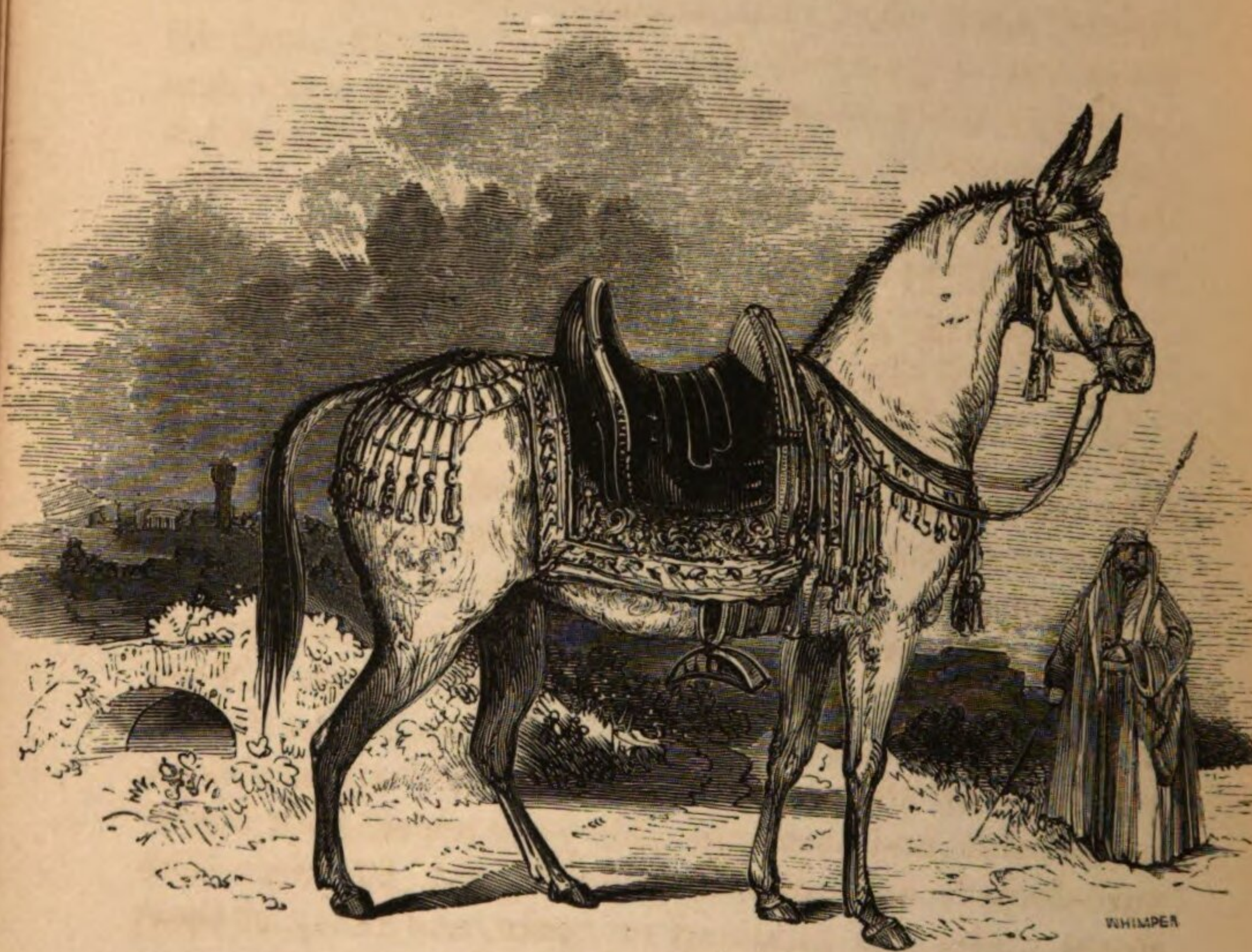
MATT. III. 4.—“*And the same John had his raiment of camel's hair, and a leathern girdle about his loins; and his meat was locust and wild honey.*”

THIS most remarkable insect, the *locust*, is called in the Hebrew language *arbeh*, a word which signifies to multiply. This name is given because of the immense and inconceivable swarms of these insects by which many eastern countries are infested.

Linnæus has classed all locusts under the genus *gryllus*, which includes grasshoppers and crickets. As to size, the common brown locust is about three inches in length; its antennæ are two in number and about an inch long, and it is provided with two pairs of wings. This is necessary from its weight and the immense distance through the sky which it is sometimes destined to travel. The head and horns are brown, and also the upper side of the body and upper wings, the former, in addition, spotted with black, and the latter with dusky spots. In general form and appearance there is a considerable resemblance to the grasshopper so well known in this country. What is not the case with other insects, the males are much more numerous than the females. The

males only make a noise, which is produced by a quick vibration of the wings against each other, or against their legs. It is very singular that the *nympha*, or *worm* of the locust, differs very little from the locust in its perfect state. In the nymph state, it moves and eats; and there is only this difference, that the wings are not moved and expanded as in the perfect state, but are beautifully folded up in small compass, and form the appearance of two small buttons on the shoulder.

The number of the locusts is so extraordinary, that they will darken the whole sky for the extent sometimes of more than a hundred miles. A captain of a vessel informed me, he saw the sky darkened and covered by them for several days when navigating the ocean, to the east of the African continent. When they invade a country, if it is before them a garden of beauty, behind them it is a dreary desert. They destroy every green thing! They lay their eggs, and then die. Each one lays from two to three hundred eggs, which are hatched by the heat of the sun in the following spring. Locusts often prove a dreadful visitation of Providence. They were one of the ten plagues of Egypt: (Exod. x. 14.) In the days of Joel, the prophet, they occasioned a famine: (Joel, ii. 1—11.) The locusts, according to the Levitical law, were ceremonially clean. John the Baptist, in a great measure, lived upon them, and probably the Abyssinians to the present day. In the book of the Revelations, false teachers and persecu-



WHIMPER

THE MULE.

tors are compared to locusts coming out of the bottomless pit: (Rev. ix. 1—11.)

THE MULE.

פֶּרֶד, PERED. Separation.

1 KINGS, I. 33.—“ *The king also said unto them, Take with you the servants of your lord, and cause Solomon, my son, to ride upon mine own mule, and bring him down to Gihon.*”

THE mule is a mongrel quadruped, showing a resemblance both to the horse and the ass. It is the offspring of a horse and she-ass, or an ass and mare. By the immutable law of nature, and the wise appointment of God, mules can have no descendants. Mules are of great antiquity, and were known in the days of David. In their disposition they are rather vicious, intractable, and obstinate. They are remarkably hardy, sure-footed, and able to endure great fatigue. The finest mules are produced in Spain, and many of them are fifteen or sixteen hands high. It is surprising they are not more used in England, as they are much hardier than horses, and even surpass them in strength: they are less subject to disease, and will live and work to twice the age of a horse. They are particularly useful in mountainous countries, and in rocky, stony

ways. Therefore they are much used in the Alps and Pyrenees. From the medals of Julia and Agrippina, it appears that the Roman ladies had chariots drawn by mules. David and his sons rode upon mules: (2 Sam. xiii. 29 :) "Then all the king's sons arose, and every man gat him up upon his mule and fled." Solomon rode upon a mule at his coronation. King Ahab had great numbers of them. The Jews in their return from Babylon, had two hundred and forty-five of them for bearing their furniture. (Ezra, ii.)

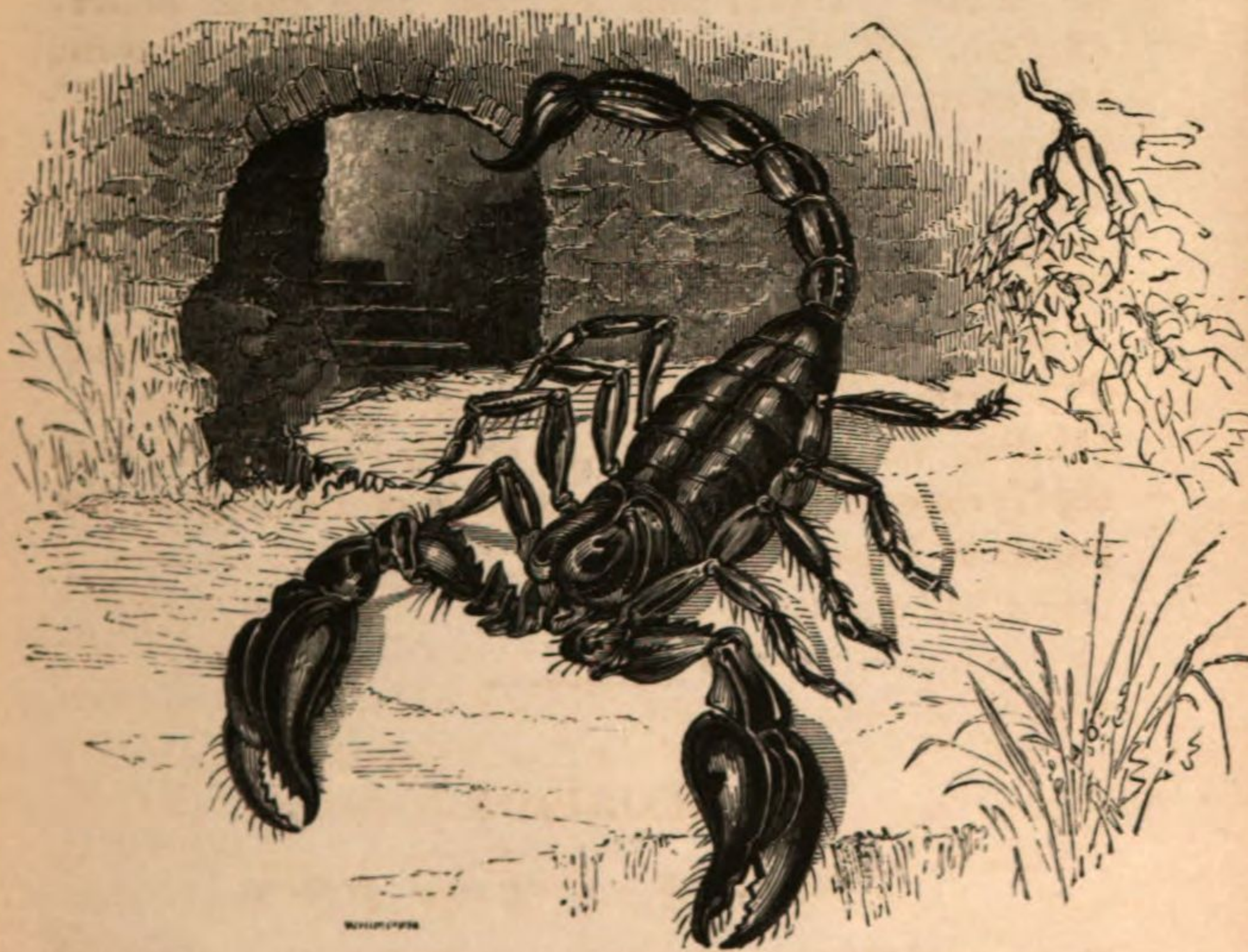
This must have been a sight peculiarly interesting. The Persians used them for their posts to ride on. (Esther, viii. 10.) In Ezek. xxvii. 14, we find, that the Tyrians bought great numbers of them from the people of Tagarmah.

SCORPION.

עֲקָרָב, OKRAB. *Squeezing greatly.*

DEUT. VIII. 15.—"Who led thee through that great and terrible wilderness, wherein were fiery serpents and scorpions."

SOME think that the Hebrew name of this most hateful reptile is compounded of two words, signifying a *father-killer*. We have most credible authority in stating,



THE SCORPION.

that young reptiles almost as soon as born will turn on their parents and sting them to death ; such is the unnatural violence of their vicious nature, which cannot be exceeded or even equalled by any other noxious reptile. The Hebrew name *okrab* will admit of another interpretation descriptive of the dangerous habit of this animal, namely, “*pressing much*,” or, “*squeezing greatly* ;” for when it seizes upon a person, it fixes with such violence, that it cannot be removed without much difficulty.

In zoology, *scorpion* is a genus of insects belonging to the order of *aptera*. It has eight legs, and a pair of claws at the head resembling a crab. It has eight eyes, two on each side of the thorax, and two on the back ; two feelers resembling claws. The tail consists of several joints, or divisions, and these, some think, according to the number of their years. The tail is terminated by a sharp-pointed weapon, which is turned upwards on striking the fatal blow. When the point of this weapon is plunged into the flesh, the venom is exuded or discharged from an opening on each side of the sting, so small as only to be discerned by the assistance of the microscope. The scorpion is about the size of an egg ; hence the allusion of our Saviour to this animal ; “If a son shall ask bread of any of you that is a father, will he give him a stone ? or if he shall ask an egg, will he offer him a scorpion ?” (Luke, xi. 11, 12.) This creature is of a sooty colour. It is full of craft, and watching every opportunity of doing

mischief. As far as an irrational animal can resemble Satan, this resembles that evil, malignant, envenomed spirit. The dam brings forth about eleven young at once, resembling worms. The scorpion resides chiefly in old ruins, and in dry stony places. Scorpions abound in the desert of Arabia, as we learn from Deut. viii. 15, and Num. xxxiv. 4. In this last verse there is a place mentioned in Arabia, called *Akrabbim*, and signifying the *place of scorpions*. Wicked men of various descriptions, the violent, the crafty, and malignant enemies of the church, are compared to scorpions. Very appropriate name indeed for such characters. (Rev. ix. 3.) “And there came out of the smoke locusts upon the earth, and unto them was given power as the scorpions of the earth.”

CRANE.

עגור, OGUR. *To return home.*

JER. VIII. 7.—“*The turtle, and the crane, and the swallow observe the time of their coming; but my people know not the judgment of the Lord.*”

THE crane belongs to that class of birds called *waders*, and to that tribe called *heron*. The crane is a large



THE CRANE.

bird, about five feet in length. The bill is more than four inches long. The feathers are ash-coloured, the forehead is black, and on the upper part of the neck there is a space of about two inches, ash-coloured and bare. At the tip of each wing there is a beautiful tuft of loose feathers, which the animal can erect at pleasure. The legs are long and stout, with a large naked space above the knee, and their toes are long. There is a peculiarity about their windpipe. It runs considerably down their breast, then returns at the same passage, and descends to the lungs.

Cranes inhabit Europe and Asia; and in autumn they regularly migrate in flocks to the southern parts of Asia and Africa. In Sweden and Poland they are so numerous as to become injurious to the fields of wheat. The female makes her nest among rushes, on alder-bushes, and occasionally on the roofs of detached houses. She generally lays two eggs of a green ash-colour, spotted with brown.

Cranes live chiefly on slugs, worms, frogs, grain, and herbs which grow in the fields, or in marshy situations. In winter they resort in crowds to Egypt and the warmer parts of India. In their expeditions they fly exceedingly elevated in the air, forming an angular shape. When the wind freshens, or when an eagle approaches, they assume the form of a circle. They take their journeys chiefly in the night, and as they advance, utter loud and discordant screams. During their voyages, their leader often calls to rally his

troops and guide them in their course, to which each individual answers, as if to notice that it is following in the proper tract. Here, the instinct of the crane teaches a most important lesson, namely, that we should most carefully follow the course to heaven pointed out to us in the word of life.

When assembled on the ground, they are said to set guards ; and therefore in the ancient hieroglyphics they were represented as symbols of circumspection and watchfulness.

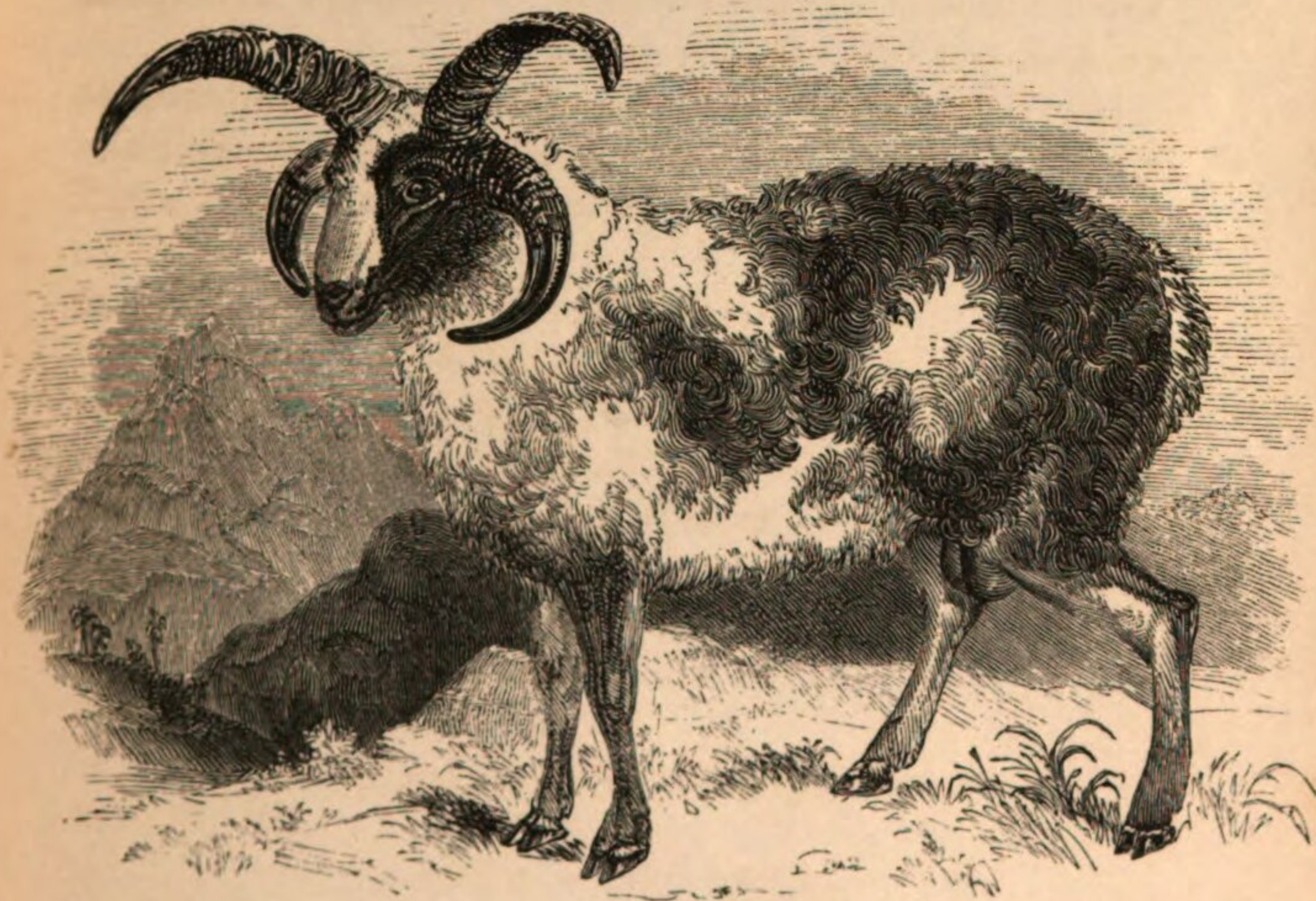
Hezekiah, during his severe sickness, “chattered as a crane,” intimating that he cried loud because of the severity of his pain. (Isaiah, xxxviii. 14.) The Jews are represented as more stupid than cranes, which know the time of their coming, while *they* knew not the season of their duty. (Jer. viii. 7.)

FOUR-HORNED RAM.

ל'א, AIL. *Defence.*

GEN. XXII. 13.—“*And Abraham lifted up his eyes, and looked, and behold behind him a ram caught in a thicket by his horns ; and Abraham went and took the ram, and offered him up for a burnt-offering in the stead of his son.*”

It is the opinion of some that the ram caught in the thicket, and sacrificed by Abraham, was the four-



THE FOUR-HORNED RAM.

horned ram. We allow that this is wholly conjecture, but it is conjecture not without probability. Of the sheep tribe there are no less than twelve species, and one species consists of the many-horned sheep. The number of horns is not always equal ; in some there are three, in others, the exact number of four, and in others, even more than four, and growing out of the head like a bunch.

On the probability of the four-horned ram being that caught in the thicket, one observes : “ If we could suppose that the ram in this instance had four horns, like some occasionally seen among the Asiatic races, his liability to be caught by the horns in a thick-grown, tangled underwood, must have been very great. It is easy to see by a contemplation of the figure, that a bunch of horns so variously twisted, would have involved the animal in fresh difficulties, whichever way he turned to endeavour to extricate himself.”

Be this as it may, the sacrifice of the ram was to Abraham an event of immense and sacred interest. At the command of God he had bound his son Isaac, had placed him upon the altar, and had actually lifted up his hand to plunge the knife into his throat. At this awfully critical moment, God interposed, and prevented the blow. The patriarch liberated Isaac, looked behind, saw a ram near to him caught in a thicket, laid hold on him, and offered him instead of his only son. So deeply was his mind affected by the

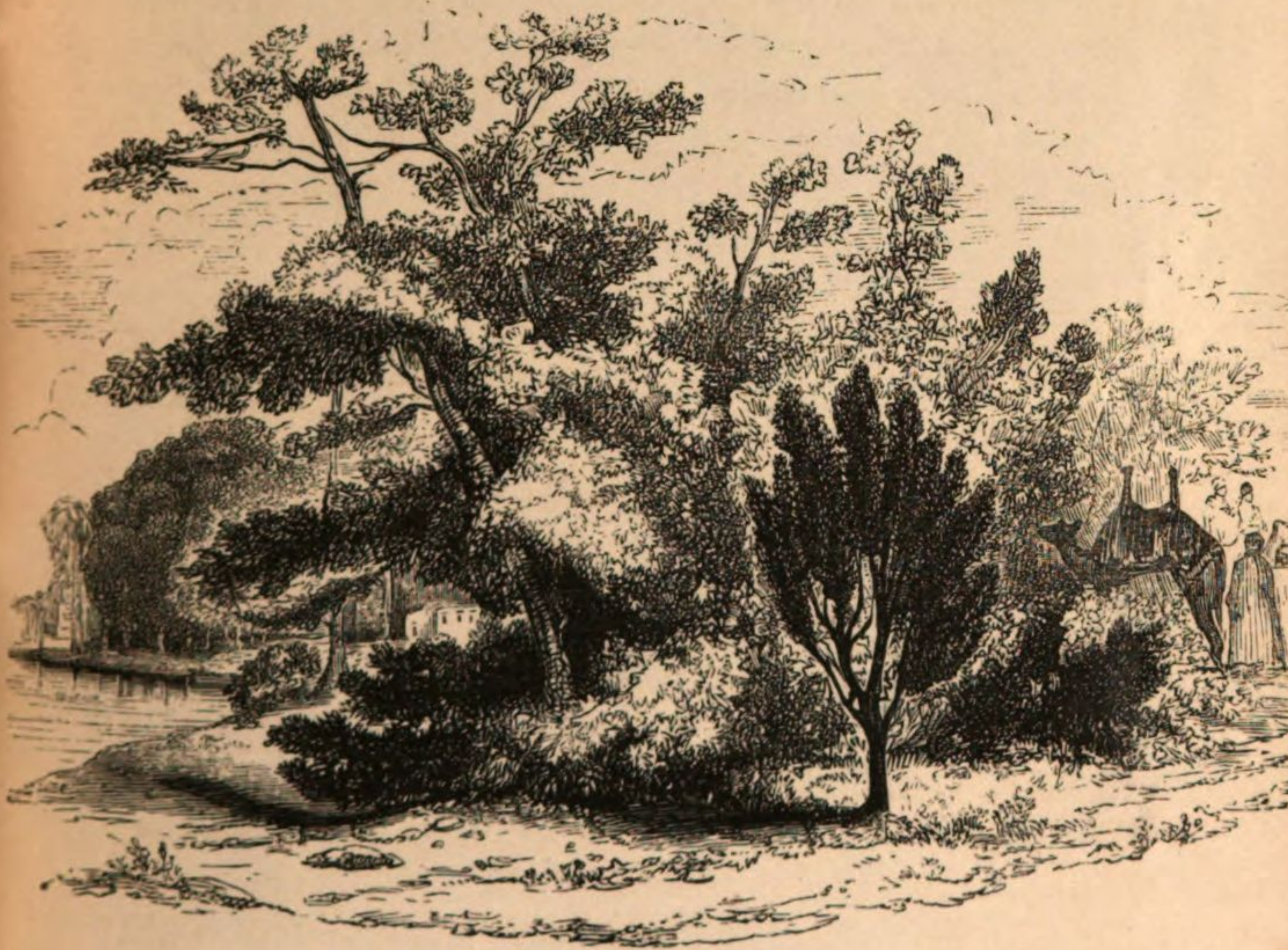
circumstance, that he called the place JEHOVAH JIREH, that is, "the Lord will provide."

JUNIPER-TREES.

רוֹתֵם, ROTHEN. *To bind*

1 KINGS, XIX. 5.—"And as he lay and slept under a juniper-tree, behold, then an angel touched him, and said unto him, Arise and eat."

THE *juniperus*, or juniper-tree, is a genus of the *monadelphia* order, and belonging to the *dioecia* class of plants. The leaves are evergreen, narrow, and sharp-pointed; the male flowers are of the *amentaceous* kind, that is, "hanging as by a thread." The fruit is a roundish, fleshy kind of berry; the seed is oblong, and the branches tough, sufficient for the purpose of binding; hence the origin of the Hebrew name *rothem*, signifying to bind. In good soil, the juniper will grow to the height of fifteen feet, and therefore could furnish a sufficient protection for the prophet from the sun, and particularly as its branches are, like those of the cedar-trees, so umbrageous. Tournefort, the celebrated naturalist, mentions five kinds of the juniper, but the number of the species of this tree amounts to fourteen. The berries have been used for medicinal purposes. It is remarkable that the fruit requires two



JUNIPER-TREES.

years in ripening. Thrushes and grouse feed on the berries. The whole plant has a strong aromatic smell. When the wood is burnt, it sends forth a fragrant odour like incense. The charcoal made from the wood endures longer than any other, insomuch, that live embers are said to be found in the ashes, after being a year covered. In Psalm cxx. 4, there is an allusion made to the intense heat of the juniper coals, as a figure employed to point out the severe punishment to be inflicted upon those who injure others by their false tongue. "What shall be done unto thee, thou false tongue? Sharp arrows of the mighty with coals of juniper."

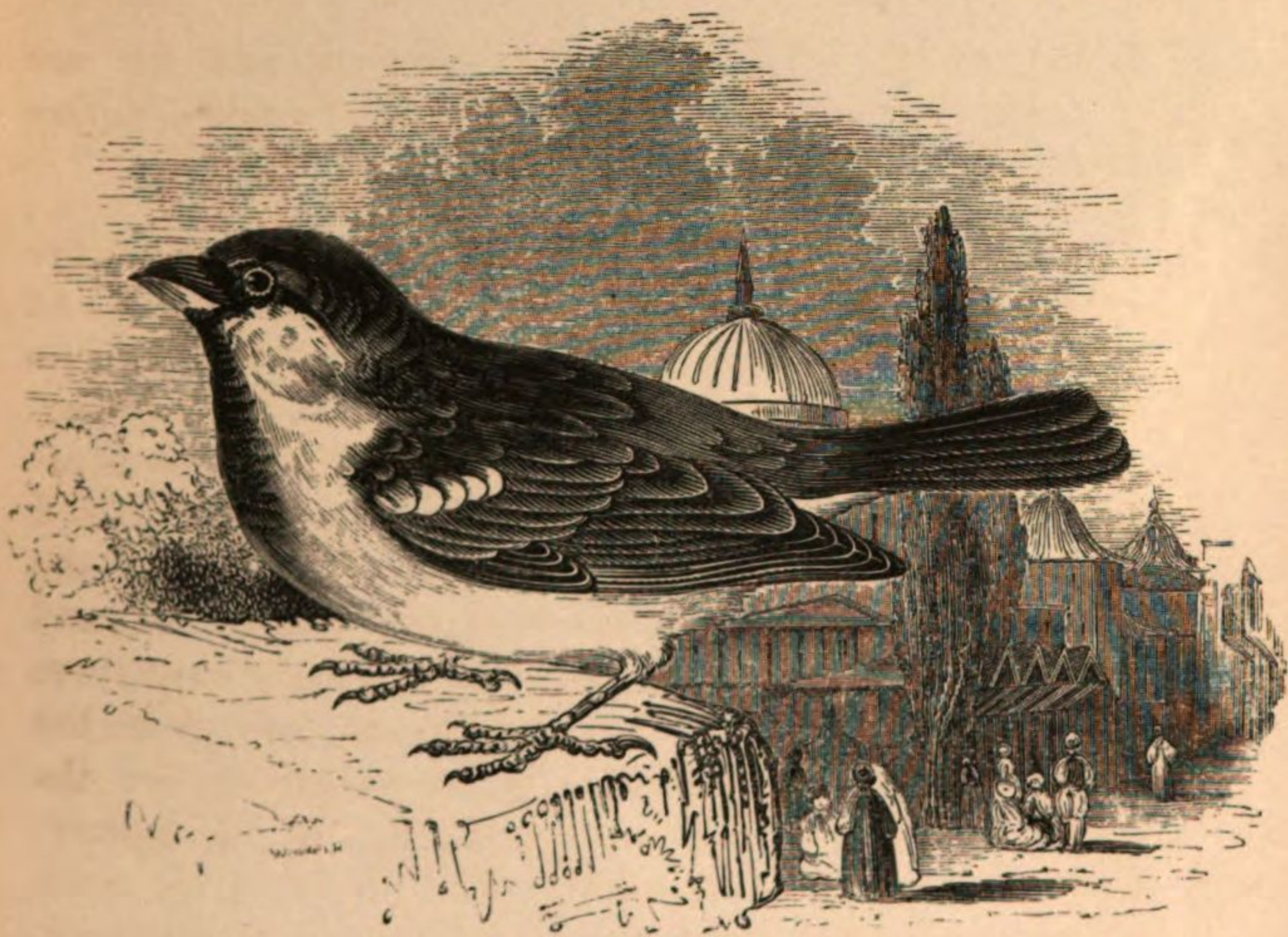
Let all learn, that if they continue impenitently in sin, they cannot escape punishment. The heat of the coals of juniper, great as it is, when compared with the flames of hell, is moderate. Who can conceive the flames of divine justice, the flames of a guilty conscience, the burning fiery flames of endless despair? Careless sinner, think !

THE SPARROW.

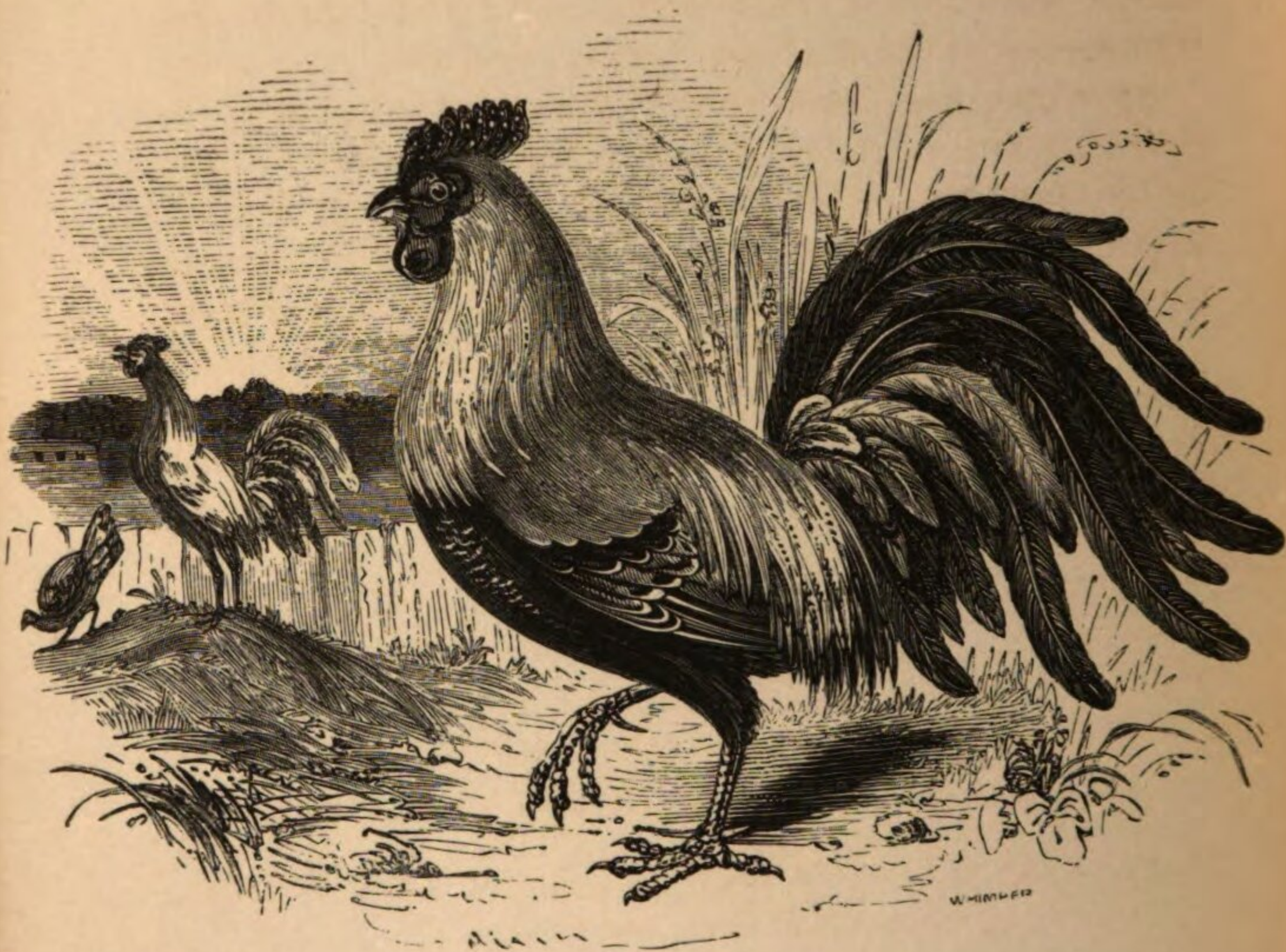
צִפּוֹר, TZIPPOR. *Swift motion.*

LUKE, XII. 6.—“*Are not five sparrows sold for two farthings, and not one of them is forgotten before God.*”

THE sparrow, in ornithology, belongs to a genus in the order of *passeres*. The bill is conical, straight, and sharp-pointed. Under this genus there are more than a hundred species, chiefly distinguished by their colour. As the *domestic sparrow* is no doubt that which is alluded to in Scripture, our description will be confined to that well-known species. The chief feathers of the wing and tail are brown, those of the breast dark, and those of the body grey and black. They have three broods in the year. They delight to live near the habitations of men; and it is interesting to see the great numbers which are constantly in the squares and other parts of London. They build their nests about our houses, wherever they can find admittance. Their nests are built slovenly, generally consisting of a little hay lined well with feathers, where they lay five or six eggs of a reddish-white colour, spotted with brown. Sometimes they expel the martins from their nests, to save the trouble of building one of their own. There is an instance upon record of the martins having shut the door of one of their nests with clay, which a



THE SPARROW



THE COCK.

sparrow had unjustly taken possession of, and thus the usurper was immured in dark and solitary confinement. In spite of every precaution, sparrows will mingle with domesticated fowls, and partake freely and confidently of the food thrown out to them.

Sparrows were used by the Jews for food; hence we read that two of them were sold for a farthing, or five for two farthings. (Matt. x. 29; Luke, xii. 6.) David, to point out his afflicted and sorrowful condition, compares himself to a sparrow on the house-top. (Psalm cii. 7.) And when far distant in the wilderness from God's public ordinances, he thought with plaintive interest on the sparrow, as building its nest near the altars. (Psalm lxxxiv.)

THE COCK.

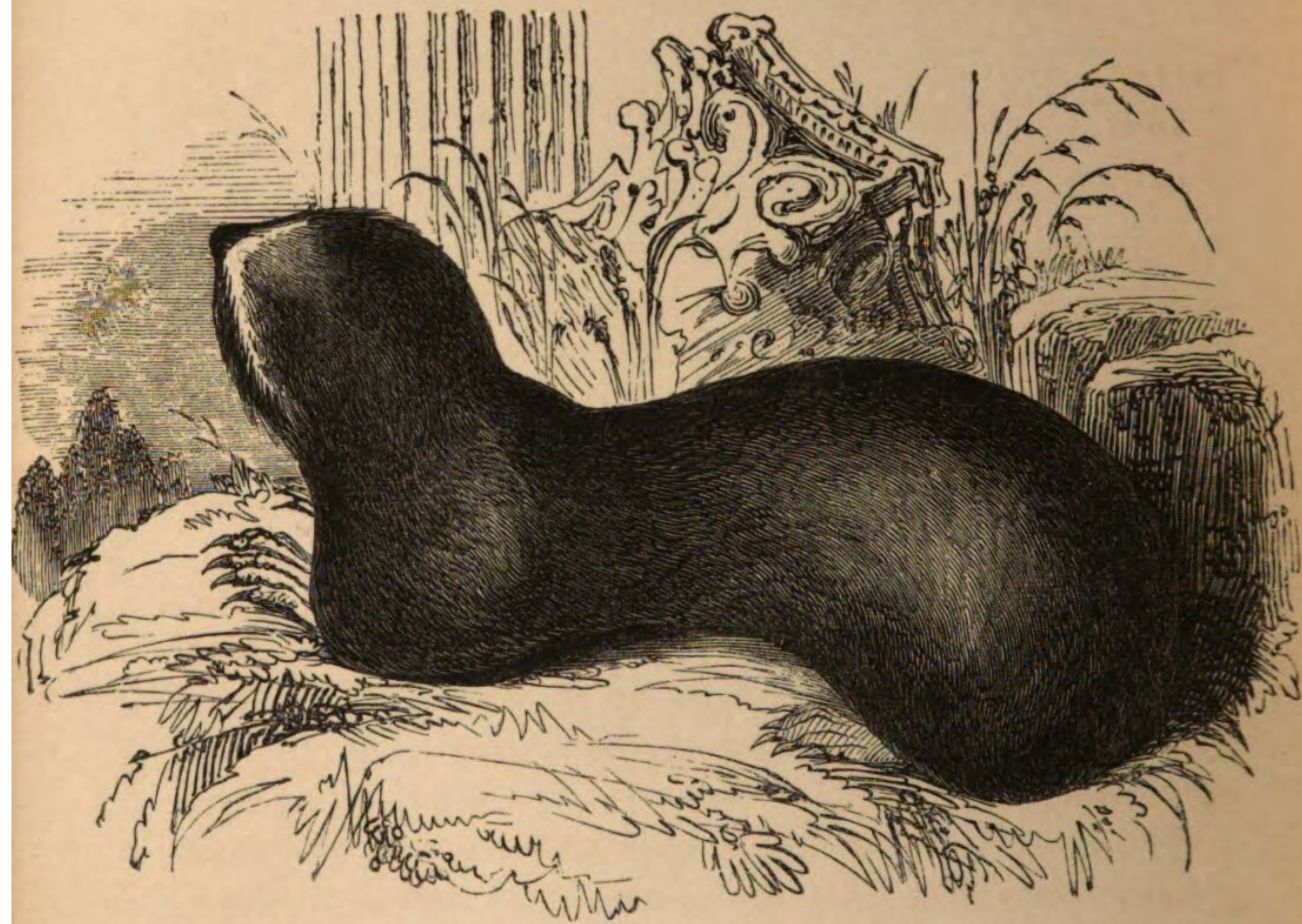
ΑΛΕΚΤΟΡ, ALEKTOR. *Brightness of the morning.*

MATT. XXVI. 34.—“*This night, before the cock crow, thou shalt deny me thrice.*”

THE cock is the male to a hen, and remarkable for his pride, gallantry, and courage. The head of the domestic cock is ornamented with a fleshy crest, or comb, and has two wattles length-ways on his throat. He is an animal both robust and beautiful, and his feathers often present colours variegated and elegant. It

is probable that he was originally imported from Persia into our western world. In his wild state his plumage is black and yellow, and his comb and wattles yellow and purple. The cock claps his wings before he crows. His sight is very piercing, and when a bird of prey is near, his cry is very peculiar. He usually crows at two different times of the night; the first a little after midnight, and the second time about break of day. He is very attentive to his females, constantly watching over them, leading, defending, and cherishing them; when they straggle, collecting them together; and not daring to satisfy his own appetite till he sees them feeding around. He is often seen dropping the grain out of his own mouth, and by a particular sound inviting them to partake.

The crowing of the cock reminds us of the melancholy fall of Peter. (Mark, xiv. 66, 72.) Our Saviour mentions the crowing of the cock in connexion with a solemn advice to be ready when called by death, from time to eternity. (Mark, xiii. 35.) "Watch ye therefore; for ye know not when the master of the house cometh, at even, or at midnight, or at the cock-crowing, or in the morning."



THE MOLE-RAT.

THE MOLE-RAT.

חפור פרות, CHEPOR-PEROTH. *Deep cavity.*

ISAIAH, II. 20.—“*And in that day shall a man cast his idols of silver and his idols of gold to the moles; (chepor-peroth.)*”

As the Hebrew name, in its original meaning, is an exact picture of the *mole-rat*, no apology is necessary for giving some account of this remarkable animal. It may be proper first, however, to give some description of the genus, a very peculiar tribe of diminutive quadrupeds, which have proved for ages the invaders of man's rights.

The generic character is, the upper front teeth wedge-shaped; grinders on each side three, sometimes only two, and the clavicles, or collar-bones in the skeleton. The rat is a genus of quadrupeds belonging to the order *glires*.

It cannot be denied that this numerous tribe forms a very formidable phalanx against man, and that it requires great ingenuity and care to reduce the number of such enemies, and to keep their daring encroachments within tolerable limits. In Great Britain the black and brown rats chiefly prevail. In other parts of Europe, and in the hotter regions of Asia, Africa, and America, many other species still more formidable are found. It is very surprising how much the dif-

ferent species vary in their manner of life. Some eat nothing but vegetables, and others every description of food that happens to fall in their way. This furnishes a striking illustration of the consequences of the fall. Man's apostacy in its influence, has reached to the vegetable kingdom, in rendering many plants poisonous and injurious; and it has reached to the animal kingdom, and arrayed myriads against him as armed hosts, to endanger both his property and life.

The pace or movement of the rats is generally quick. and they choose for their residence obscure subterraneous retreats, from which they sally forth at night. They are exceedingly prolific. Some species are migratory, moving from place to place, while others are local and attached to the same residence.

The manners of the species called the *economic rat*, prevailing in Siberia, are interesting and striking, while their habits show how worthy they are of the name. Their residence is underground, and consists of numerous apartments slightly arched above, communicating together like a commodiously arranged house. There they deposit their stores for winter, which they collect with great care and industry in summer. If their stores are too damp and in danger of fermentation, they bring them out, in their instinctive wisdom, expose them to the drying influence of the sun, and then restore them to their place. Their migrations in searching for food are often remarkable. In a manner very ludicrous they will cross and recross

streams and lakes for obtaining winter provisions, which, with much care and ingenuity, they will lay up in their store-houses.

By Linnæus the mole-rat is designated *mus typhlus*. Above it is brown, below dusky. It is not altogether blind, but its eyes are very minute, and placed under the skin. Very little light is admitted, but at the same time as much as the wants of the creature require, generally remaining underneath the surface of the earth. One celebrated traveller, Oliver, observed the blind rat in Asia Minor, Syria, Mesopotamia, and Persia; and another celebrated traveller, Pallas, found it in southern Russia, between the Tanais and the Volga. As to its habits, the following observations are worthy of notice. It is gregarious, and lives underground like the mole. Its numerous and winding passages are not much below the surface of the earth, but considerably deeper are those commodious recesses where it reposes itself in complete security from the external elements. It is most attached to fertile level grounds. It entirely subsists on roots, and therefore seriously injures every green crop that comes in its way. It moves quickly, irregularly, and abruptly. In the morning it sometimes quits its hole, to bask in the sun. If disturbed, it instantly takes refuge under the surface, burrowing with great agility, and often in a perpendicular direction. It has the peculiar faculty of running backwards with great facility, carrying its head in an erect posture, stopping at the least noise,

listening attentively, and when attacked, biting severely. It is singular, when irritated, it utters a snorting sound, and in a very menacing manner gnashes its teeth.

How abominable in the eye of God are false and foolish idols, worshipped by men possessed of reason and destined to live for ever, which contemptible objects of adoration are only worthy to be cast to *mole-rats*, whose habitation is that of darkness and of gloom.

THE WATER-RAT.

As the genus, or tribe to which this creature belongs is mentioned in Scripture under the name of *mice*, there can be no impropriety in giving some description of that species called the *water-rat*. Its scientific name is *mus amphibious*. It is generally found in the temperate, and even the colder parts of Europe and Asia, and also North America. It frequents rivers and stagnant waters, forming its burrows on the banks. It is of a thicker and shorter form than other species, and is somewhat of the shape of a beaver. Its general length is about seven inches, and the tail about five. Above, its colour is an iron-black, the nose is thick and blunt, the eyes small, and the ears rounded and hid in the fur. It is far from uniform in size, and therefore the varieties have been mistaken for different species. This animal never frequents houses, but con-



THE WATER-RAT.



BARLEY.

finds itself to the banks of waters. It is supposed chiefly to live on fish, frogs, &c., and also on vegetable substances. On a beautiful summer's day, I saw one on a rich verdant bank, browsing on the fine tender grass. It was the picture of animal happiness and contentment. Its eyes were bright and well formed. It seemed greatly to enjoy its simple, humble repast. Some considerable time I remained unnoticed. At last I was discovered; when, alarmed at man, it instantly plunged into the waters beneath.

At some seasons of the year, this species has a musky scent. It is in the month of April the female generally brings forth her young, and commonly about four or six at a time.

BARLEY.

שַׁעֲרָה, SHOREH. *Standing up erect.*

EXOD. ix. 31.—“*And the flax and the barley was smitten; for the barley was in the ear, and the flax was balled.*”

BARLEY is a genus of the *tri-andria*,—*tri-gynia* class of plants, the corolla of which consists of two valves,

the lower of which terminates in long *arista*, or beards, standing up erect, and from which it receives its Hebrew name *shoreh*. The seed is oblong, pointed at each end, and marked with a longitudinal furrow.

Pliny, the celebrated and ancient naturalist says, that barley was the food of man in the remotest periods of antiquity. In Palestine, the barley was sown in October and reaped in the end of March, soon after the passover. The Hebrews made frequent use of barley. When David fled from his son Absalom, his friends brought to him wheat, barley, and flour. (2 Sam. xvii. 28.) Solomon used barley for his horses, and sent barley along with wine, oil, and wheat, to the Tyrian labourers furnished by king Hiram. (2 Chron. xi. 15.) A man came from Baal-shalisha, and presented Elisha with twenty loaves of barley-meal, when by a miracle, a hundred men were fed to the full. (2 Kings, iv. 42.) It is a singular coincidence, that our Lord miraculously fed and feasted five thousand men with five barley loaves and a few fishes. (John, vi. 9, &c.)



RYE.

RYE.

כסמח, CASSEMETH. *Having long hair.*

ISAIAH, XXVIII. 25.—“ *When he (the plowman) hath made plain the face thereof, doth he not cast abroad the fitches, and scatter the cummin, and cast in the principal wheat, and the appointed barley, and the RYE in their place?*”

RYE is a genus of the *digynia* order, in the *triandria* class of plants, ranking in the natural method, under the fourth order, *gramina*. The calyx is a glume of two leaves, which are opposite to one another, erect, linear, pointed, and less than the corolla, which consists of two valves, the exterior of which ends in a beard. Of this grain there are four species.

The common rye used in this country is a native of Candia, the modern name of the island of Crete. It was introduced into England many years ago. It is said that a small quantity of rye sown among wheat, will prevent that destructive disease called mildew. It is a peculiarity of this grain, that it grows and thrives on poor, sandy soil, altogether insufficient to sustain wheat.

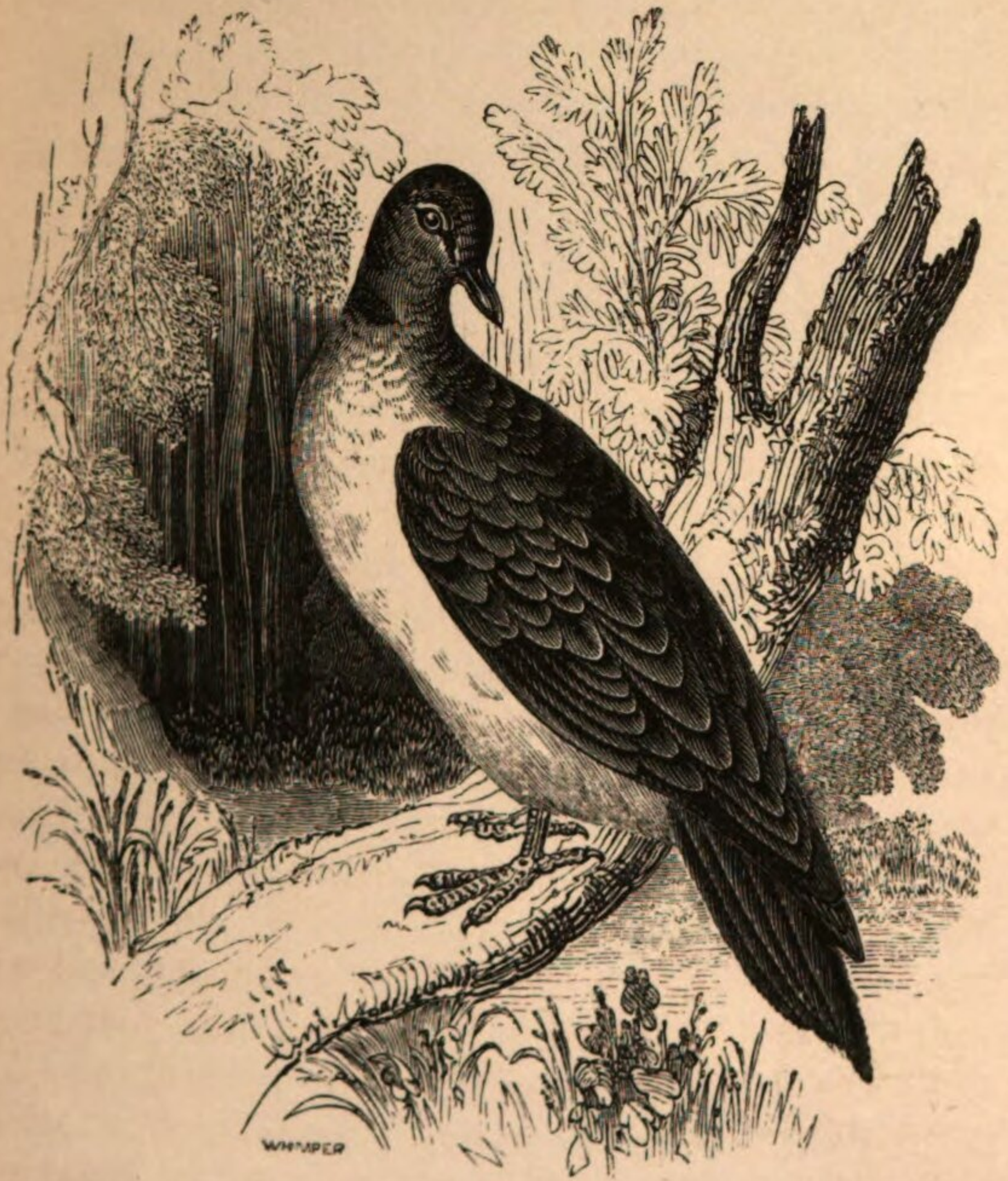
THE TURTLE-DOVE.

תור, TUR. *The cry of the turtle-dove.*

SONG II. 12.—“*The voice of the turtle is heard in our land.*”

THE name of this bird is evidently taken from its peculiar note or cry. In ornithology, or the science of birds, the columba, or pigeon, is a genus belonging to the order *passeres*. The descriptive characters of this genus are the following: the bill is straight, and descends toward the point; the nostrils are oblong, and half covered with a soft tumid membrane; and the tongue is entire, and not cloven. There are no less than seventy species, all belonging to different countries.

The turtle-dove is a native of India. It is in length about twelve inches and a half; its breadth from tip to tip of wings extended, twenty-one inches; and its weight about four ounces. The iris of the eye is of a fine yellow colour, and the eyelids encompassed with a beautiful crimson circle. In the figurative language of the Song of Solomon, the church speaking of Christ's loveliness says, (chap. i, 15,) “Behold, thou art fair; thou hast doves' eyes.” And Christ, in speaking of the graces of his church says, (chap. iv.) “Behold, thou art fair, my love; behold, thou art fair; thou hast doves' eyes within thy locks.” And then the church again, speaking of Christ's excellence, says,



THE TURTLE-DOVE.

(chap. v. 13,) "His eyes are as the eyes of doves by the rivers of water, washed with milk, and fitly set."

To return to the description ; the chin and forehead are whitish ; the top of the head ash-coloured and mixed with olive. On each side of the neck is a spot of black feathers, prettily tipped with white ; the back is ash-coloured, bordered with olive-brown. The breast is of a light purplish red, having the verge of each feather yellow ; and the belly white. The tail is three inches and a half in length ; the two middle feathers of a dusky brown ; the others black with white tips ; and the end and the exterior or outmost feathers all white. On the whole, it is a bird of remarkable elegance and beauty, ranking high among the numerous tribes of winged creatures which the hand of God has so profusely adorned with the richest plumage and the most elegant form. At a certain season of the year, these birds are found in Buckinghamshire, Gloucestershire, Shropshire, and the West of England. As to their manners, they are very shy and retired, building their nests in thick woods, generally of oak, and in autumn they take their departure, and migrate into other countries of more genial clime. (Jer. viii. 7.) "Yea, the stork in the heavens knoweth her appointed times ; and the turtle, and the crane, and the swallow." By the Levitical law, the turtle was a clean bird, and therefore was often offered in sacrifice. Thus it is said of Joseph and Mary, when they brought the infant Jesus at eight days old to present him in

the temple before the Lord; (Luke, ii. 22, 24;) “They brought him to Jerusalem, to present him before the Lord; and to offer a sacrifice, according to that which is said in the law of the Lord, A pair of turtle-doves, or two young pigeons.”

SNAILS.

שבלול, SABELUL. *Thrusting forward.*

PSALM LVIII.—“*As a snail which melteth, let every one of them pass away.*”

THE name *sabelul*, given to the snail, may originate in the peculiar way in which snails thrust themselves forward in moving, and also from the force with which they adhere to any substance on which they place themselves.

There are two descriptions of snails, *helix* and *limax*. The *helix*, or the snail, in zoology, is a genus in the class of *vermes*, and order of *testaces*. The shell consists of one spiral, brittle, diaphanous, that is, transparent valve, with a small opening, from which the frail inhabitant comes forth. There are as many as sixty species, differing chiefly in the form of their shells. They are of various sizes, from the half of a pea upward to a small apple. They differ much also in the places they inhabit. Some live on land, fre-

quenting woods and gardens, or inhabiting clefts of rocks and dry banks. Others are aquatic, inhabiting ponds, deep rivers, and even the great ocean. The eyes of snails are lodged in their horns, one at the end of each, which they can send out or retract at pleasure. Many naturalists have said of snails living in shells, that they have the peculiar qualities and powers in themselves of both male and female, both sexes being found in each individual. The principal species of the *helix* tribe are the *garden-snail*, the *helix janthina*, found in the sea, at a distance from rocky shores; and the *helix pomatia*, or exotic snail, which was highly prized by the great among the Romans, in ancient days, as a delicacy, and which was imported into the south of England by Sir Kenelm Digby. During Lent, they are used as food in several parts of Europe.

The *limax*, or *naked snail*, or *slug*, is a genus of insects belonging to the order of *vermes molusca*. The body is oblong, fitted for crawling, with a kind of muscular coat on the upper part; and the belly is plain. There are eight species, and they deposit their eggs in the earth. If a black snail is powdered over with salt, or sugar, or snuff, it falls into convulsions, casts forth all its foam, and dies.

Snails are easily melted before the sun, and therefore are employed as a fit emblem to represent men as destroyed by the merited displeasure of God. Snails, too, by their own motion waste their substance, leaving constantly a slime behind them, and this figuratively

illustrates the ungodly who are destroyed by their own means.

FAT-TAILED SHEEP.

שֶׁה, SEH. Probably "cool."

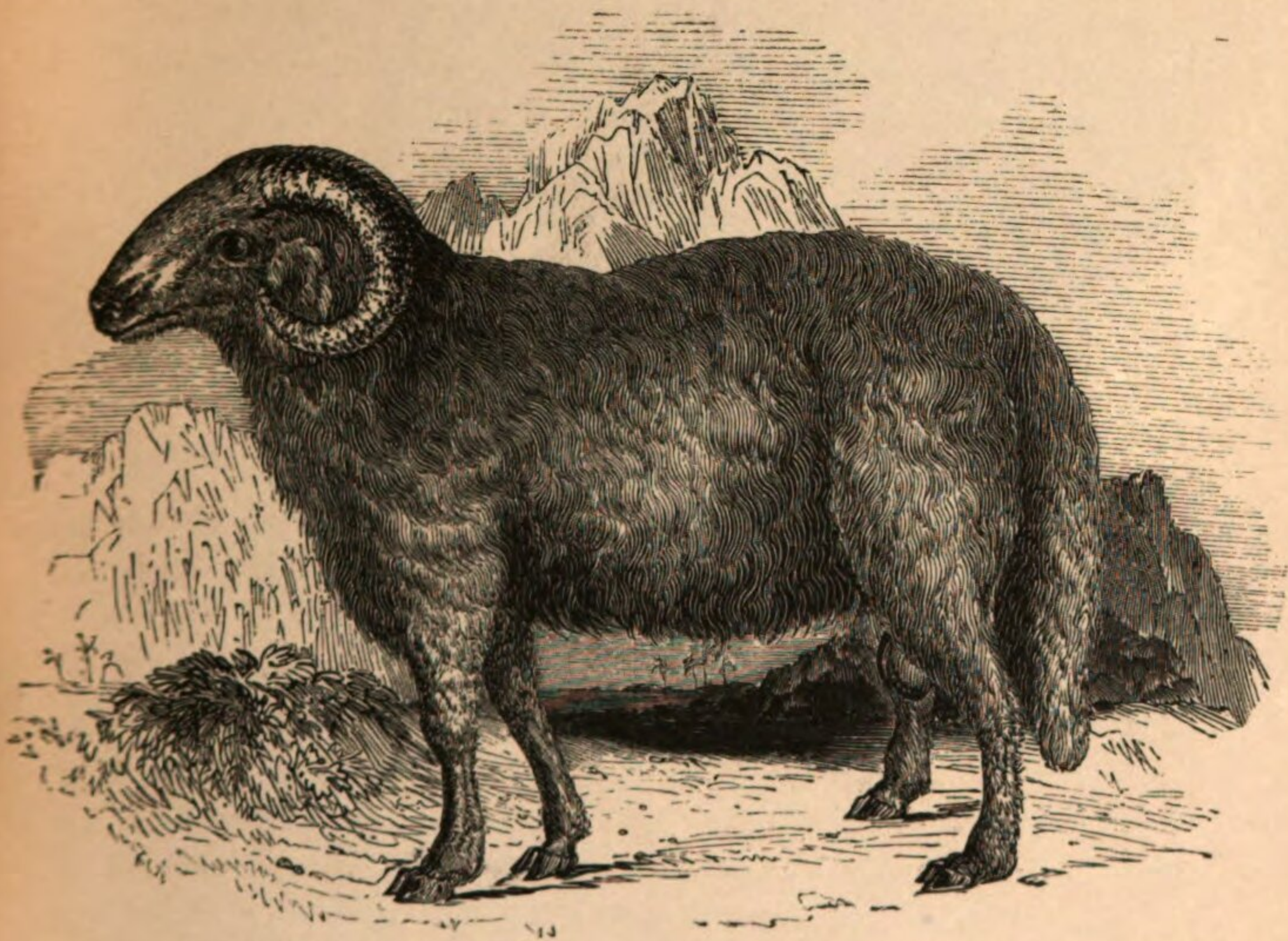
ISAIAH, LIII. 7.—"*He was led as a lamb to the slaughter, and as a sheep before her shearers is dumb, so he opened not his mouth.*"

IN the Old Testament the general name given to sheep is *seh*, and also the name *tsan* to sheep or goats considered in a flock.

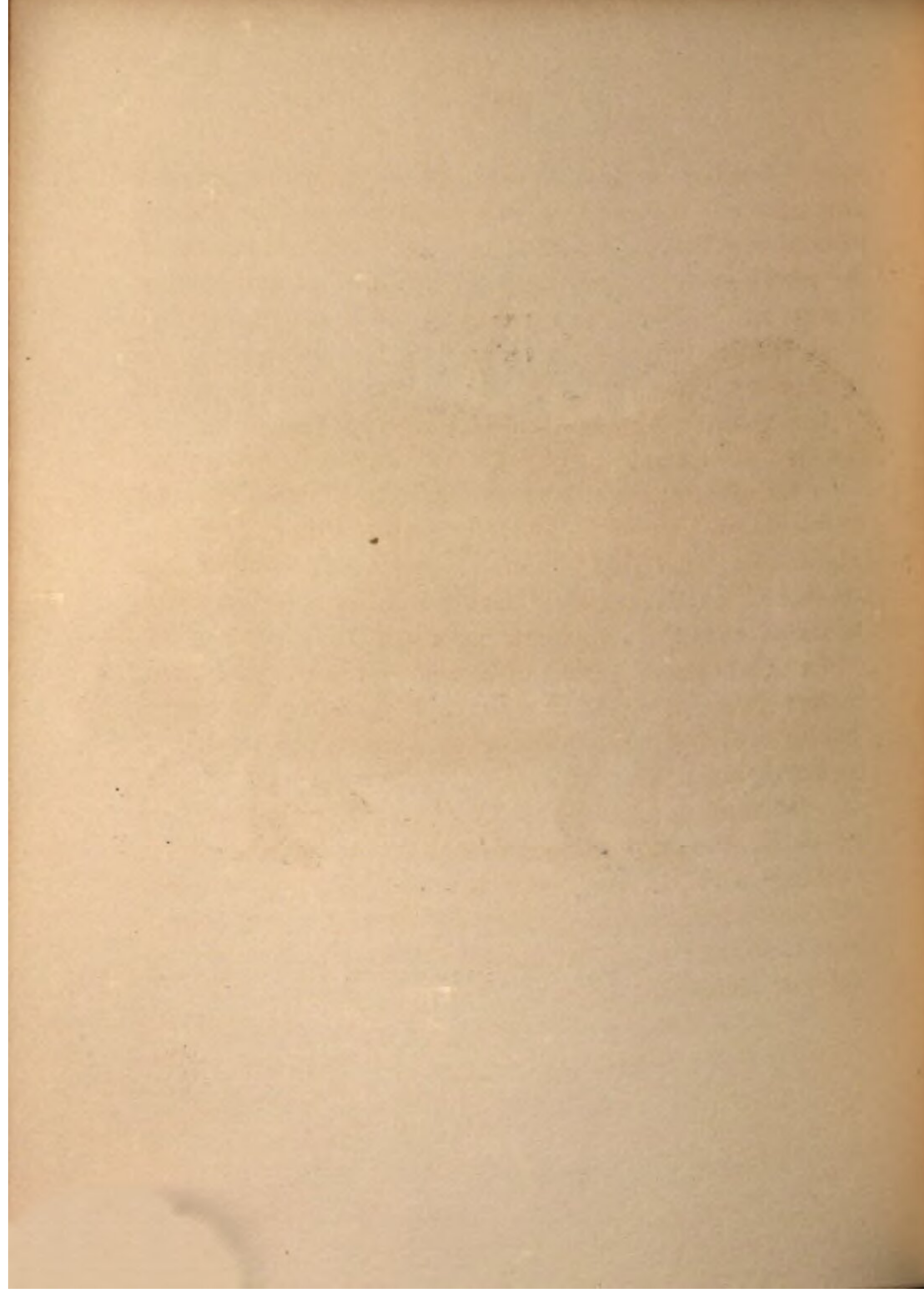
It is not my intention in this article to enter upon a full description of the sheep, one of the most useful animals to man, among all the creatures God has formed for the sustenance and comfort of our race. The description will be confined to one species, the *fat-tailed sheep*.

In zoology, the *ovis*, or *sheep*, is a genus of the *mammalia* class, and of the order of *pecora*. The horns are concave, full of wrinkles, and turned backwards. With few exceptions, sheep are provided with a covering of wool not found on any other description of quadruped, and affording the most comfortable clothing to myriads of the family of man.

The *fat-tailed sheep*, is the most abundant and largest



THE FAT-TAILED SHEEP.



breed of sheep in the world. It is reared in all the temperate regions of Asia. It is also reared in Africa, particularly by the Hottentots, and even throughout the whole empire of China. The muzzle of this species is large and yellow, the upper jaw often projecting beyond the lower; the ears are long and hanging; and the horns of the ram are large, and bent in the form of the moon. The body of the ram, and sometimes of the ewe, swells gradually with fat towards the rump. This fat often accumulates in such quantities as even to fall down behind in the form of a tail. The *uro-pygium*, or fat rump, which is made up of this oily species of fat, is often so large and abundant, as even to incommode the animal in walking.

In Madagascar, these tails sometimes weigh about sixteen pounds, and in Arabia and Syria, from twenty-five to thirty pounds. There is a reference to this fat in Exod. xxix. 22, "Also thou shalt take of the ram, the fat and the rump." Also, (Levit. iii. 9,) "And he shall offer of the sacrifice of the peace-offering, an offering made by fire unto the Lord, the fat thereof, and the whole rump." This fat is of the most agreeable taste, and in warm climates is an excellent substitute for butter.

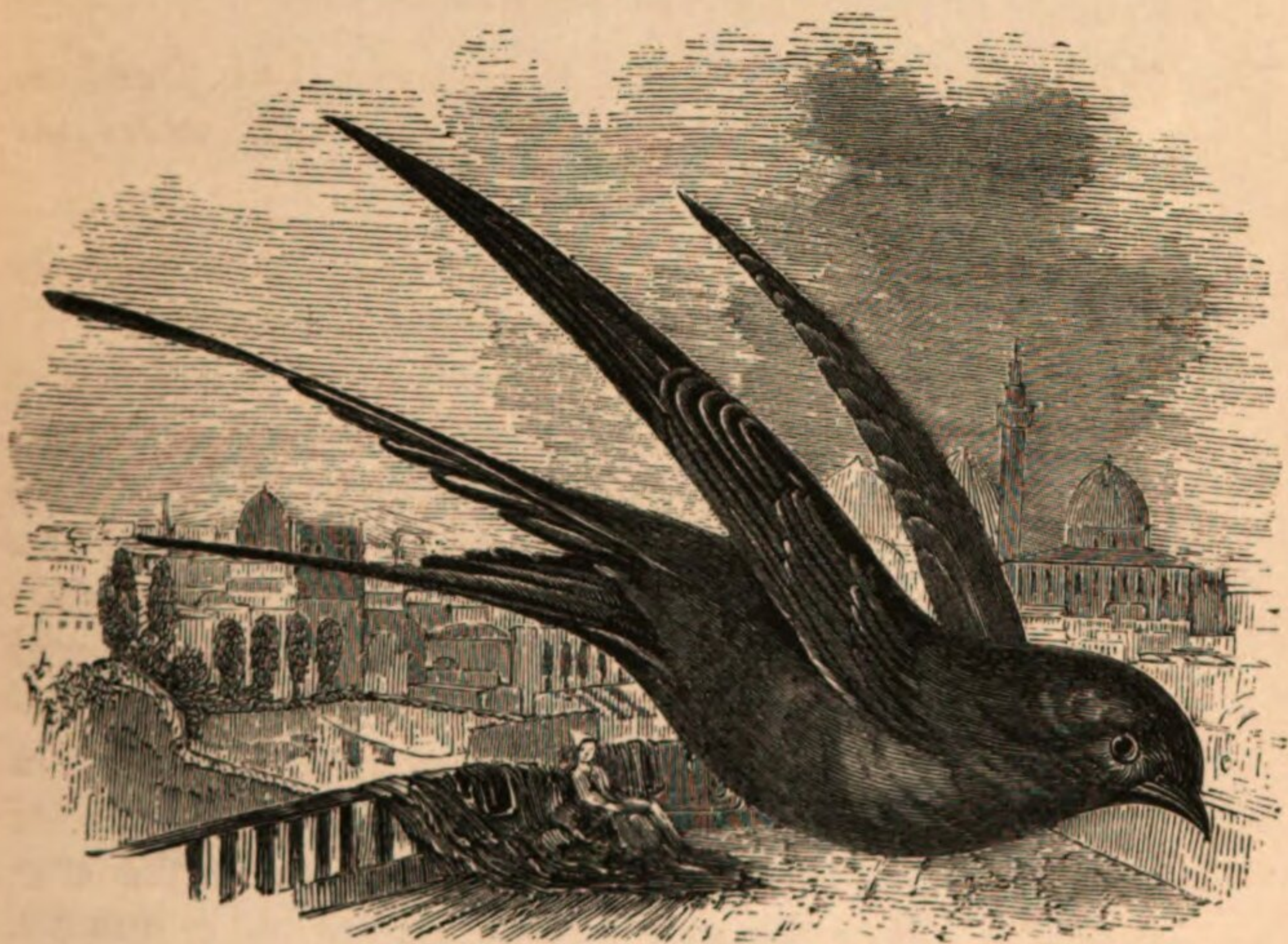
SWALLOWS.

ס'ס, סיס. *Swiftness.*

PSALM LXXXIV. 3.—“ *Yea, the sparrow hath found an house, and the swallow a nest for herself, where she may lay her young.*”

THE name *sis* is given to the swallow, either from its peculiar note, or from the swiftness of its motion.

Hirundo, or swallow, in ornithology, is a genus of birds of the order of *passeres*. There are thirty-seven species, chiefly distinguished by their colour. The voice is a peeping sound, the predominant colour black, the sight quick, and in its flight very unequal. It builds its nest of clay. Often a considerable number will assist in repairing a nest if it has unfortunately sustained any injury. Swallows resemble sparrows in discovering a strong attachment to the dwellings of human beings, where they build their nests in the corners of windows, under the eaves, and in old chimneys. From year to year they will build in the same place. It is striking, that though they migrate to distant nations, they will return next season exactly to the same spot they had left; thus discovering on the one hand a remarkable instinct, and on the other a strong attachment to the place of their nativity. In spring and summer they take up their abode in temperate climates, and in harvest and winter they retire to warmer,



THE SWALLOW

and are said to breed in both. It appears an authenticated fact, that great numbers of them continue in cold countries during the winter in a benumbed state. They have been found in such circumstances in clusters in holes of walls, banks of rivers, and even under water in marshes and lakes.

The Syrian swallow to which the Psalmist alludes in Psalm lxxxiv., must be the *hirundo rustica*, or common swallow. It must have been this, from the account given of its habits, as selecting the tabernacle as the place of its residence. It is distinguished from other species by the superior forkiness of its tail, and by a beautiful red spot on the forehead and under the chin. The upper part of the body is black, and the coverts of the wings are black, glossed with a rich purple blue, peculiarly resplendent in the male bird. The breast and belly are white, in the male tinged with red, and the tail is black. They live on insects. In their swift flight, they are in pursuit of winged insects, and their mouths are admirably formed for this purpose. In Isaiah, xxxviii. 14, Hezekiah compares himself to a swallow, on account of his complaints in the time of his affliction. Solomon, in one of his proverbs, employs the circumstance of the swallow not migrating without a reason, as illustrating the curse not coming without a cause. (Prov. xxvi. 2.) "As the bird by wandering, as the swallow by flying, so the curse causeless shall not come." Let the ungodly remember, therefore, that if they die impenitent, they

shall blame themselves for ever, as the cause of their endless misery !

LAPWING, OR HOOPOE.

דוכיפת, DUKIPHATH. *That which breaketh.*

LEVIT. XI. 19.—“*And the stork, the heron after her kind, and the lapwing.*”

It is the opinion of Calmet, and other judicious writers that the *dukiphath*, which our translators render lapwing, is the *hoopoe*. The Septuagint renders it *epopa*, and the Vulgate Latin, *upupa*. The *hoopoe*, in ornithology, is a genus belonging to the order of *pica*. The beak is arcuated, convex, and something blunt; the tongue is triangular, entire, and very short, and the feet are fitted for walking. There are ten species of which the hoopoe is one. It is vulgarly, yet correctly called the dung-bird. It is a most polluted bird, exceeded by none in this respect. It feeds on insects and maggots which it picks out of ordure of all kinds, and satiates its filthy appetite on human excrement. It delights to build its nest in situations the most offensive, and gives preference to putrid carcasses, as its most delightful abode. There is no creature among the irrational tribes whose habits are more opposed to its external ap-



THE LAPWING, OR HOOPOE.

pearance. There are few birds to equal it in loveliness, none to equal it in abominable habits. It has upon its head a beautiful crest, which it can erect or depress at pleasure. The length of the bird is fifteen inches ; the bill is two inches and a half long, slender and incurvated. Its noble crest consists of two rows of feathers, the highest about two inches long ; the tips are black, the lower part of a pale orange-colour ; the neck is of a pale reddish-brown ; the breast and belly white ; the lesser coverts of the wing are of a light brown ; the back and wings crossed with broad bars of white and black ; the rump is snow-white ; and the tail consists of ten white feathers, marked with black in the form of a crescent. The legs are short and black. This beautiful, yet filthy bird, was forbidden to be eaten by the Levitical law ; and is a fit emblem of the *strange women* whose outward form and dress are beautiful, but whose heart resembles a cage full of every unclean and hateful bird ! “ Holy Spirit, create in us clean hearts ! ”

WHITE MULBERRY.

בכא, BACA. *Weeping.*

2 SAM. v. 24.—“*And let it be, when thou hearest the sound of a going in the tops of the mulberry-trees, that then thou shalt bestir thyself.*”

THE *morus*, or *mulberry-tree*, is a genus of the *tetandria* order, belonging to the *monœcia* class of plants.

The *morus alba*, or white-mulberry, rises with an upright trunk, branching twenty or thirty feet high, beautified and clothed with large, oblique, heart-shaped, smooth, light green, shining leaves. The flowers are monœcious, succeeded by pale, whitish fruit. Mulberry-trees are of great celebrity throughout the civilized world, as their leaves furnish food to countless myriads of silkworms constantly engaged in spinning their silken threads, by which the costliest, and most splendid garments are formed both for ornament and comfort. For this purpose, the leaves of the white mulberry are preferred in Europe, but in China, those of the Tartarian mulberry. The white mulberry is useful for other purposes than furnishing food for silkworms. They may be cut every three or four years like willows and poplar-trees, to make faggots; and the sheep feed upon their leaves in winter, before they are burnt. They are exceedingly fond of this kind of food, which is at the same time very nourishing, giving



THE WHITE MULBERRY

a delicacy to their flesh, and contributing greatly to the fineness and beauty of the wool. As soon as the first hoar-frost in Spain affects the leaves, the inhabitants are careful in shaking them off, collecting them, and placing them in dry-sheds, that the sheep may feed upon them in frosty weather. The mulberry-tree sustains no injury by this method ; while there is reason to believe, that the beauty and fineness of the Spanish wool are in a great measure owing to this description of food. On this account the mulberry-tree should be cultivated where climate and soil are favourable, even though not required for the purpose of silk-worms.

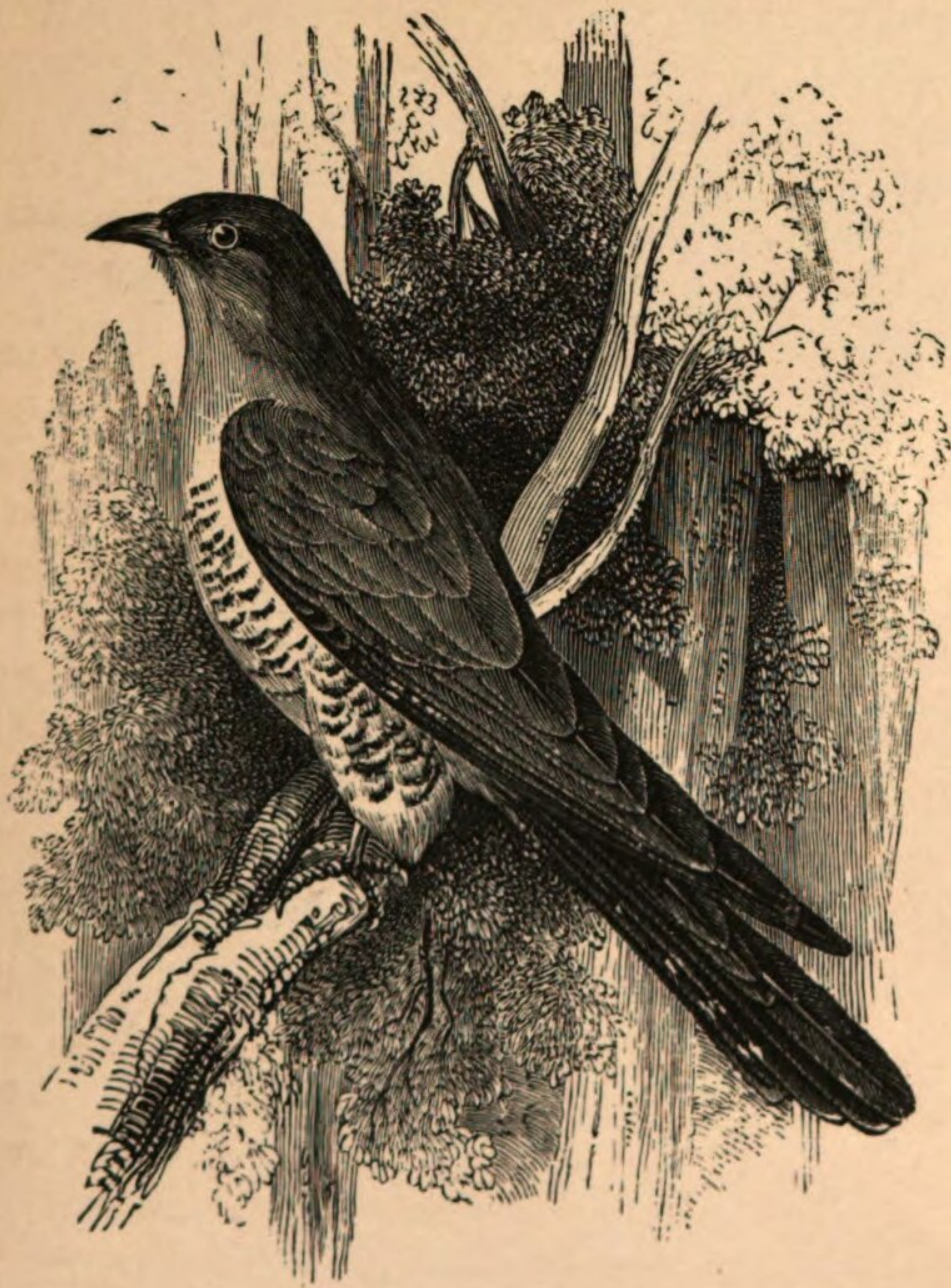
The fruit of the mulberry is rather aperient, but wholesome, delicious, cooling, and good for quenching thirst. Multitudes of mulberry-trees grew in the drier soil of Canaan, as in Rephaim and Baca. In Psalm lxxxiv, the words "Valley of Baca" are literally "Valley of Mulberry-trees." It was by a sound, probably produced by angels, David was warned to attack the Philistines in the Valley of Rephaim.

CUCKOO.

עֵרָב, SAHCAPH. *Leanness.*

LEVIT. XI. 16, 20.—“*The owl, and the night-hawk, and the cuckoo shall be an abomination unto you.*”

THE *cuculus*, or *cuckoo*, in ornithology, is a genus belonging to the order of *picæ*. The characteristic marks are these:—the bill is smooth, or more or less bending; the nostrils are bounded by a small rim; the tongue is short and pointed; and the feet and toes are formed for climbing. There are forty-six species. Our limits will only allow us to give some description of *cuculus canorus*, or the *common cuckoo*. It weighs about five ounces; is in length fourteen inches; and in breadth from tip to tip of extended wings, twenty-five inches. The bill is black, and about two-thirds of an inch in length. It is generally of a dove-colour. The legs are short, and the toes four in number, two backwards, and two forwards, like those of the woodpecker. It departs from our country in the end of harvest and returns in the spring. Summer is considered fairly commenced when the monotonous notes of this bird are first heard. And monotonous as its notes are, they are universally welcomed. The cuckoo is silent some time after his arrival; and his note is considered as a love-call to his mate. It is very singular that this bird never builds a nest for herself, nor



THE CUCKOO.

hatches her own eggs. She lays her eggs in the nest of another, and leaves her offspring to be nourished and brought up by a parent not their own. Unlike the generality of birds, cuckoos do not pair. The nests in which they generally deposit their eggs are those of the hedge-sparrow, the water-wagtail, the tit-lark, the yellow-hammer, the green-linnet, and the whinchat. The eggs of the cuckoo are hatched about the same time with the eggs of these birds. And what is extraordinary, as soon as the young cuckoos are liberated from the shells, though blind, they immediately commence turning out all the young of the natural owner of the nest, and they continue their effort till they have removed them all, and thus retain full possession of the nest which their own unfeeling parent had usurped. The celebrated Dr. Jenner relates several facts connected with this strange procedure of the young cuckoos, which leave the matter without the shadow of a doubt. In migrating the greater part of these birds are supposed to go into Africa, as they are observed to visit Malta twice a year. This bird was forbidden to be eaten by the Levitical law.

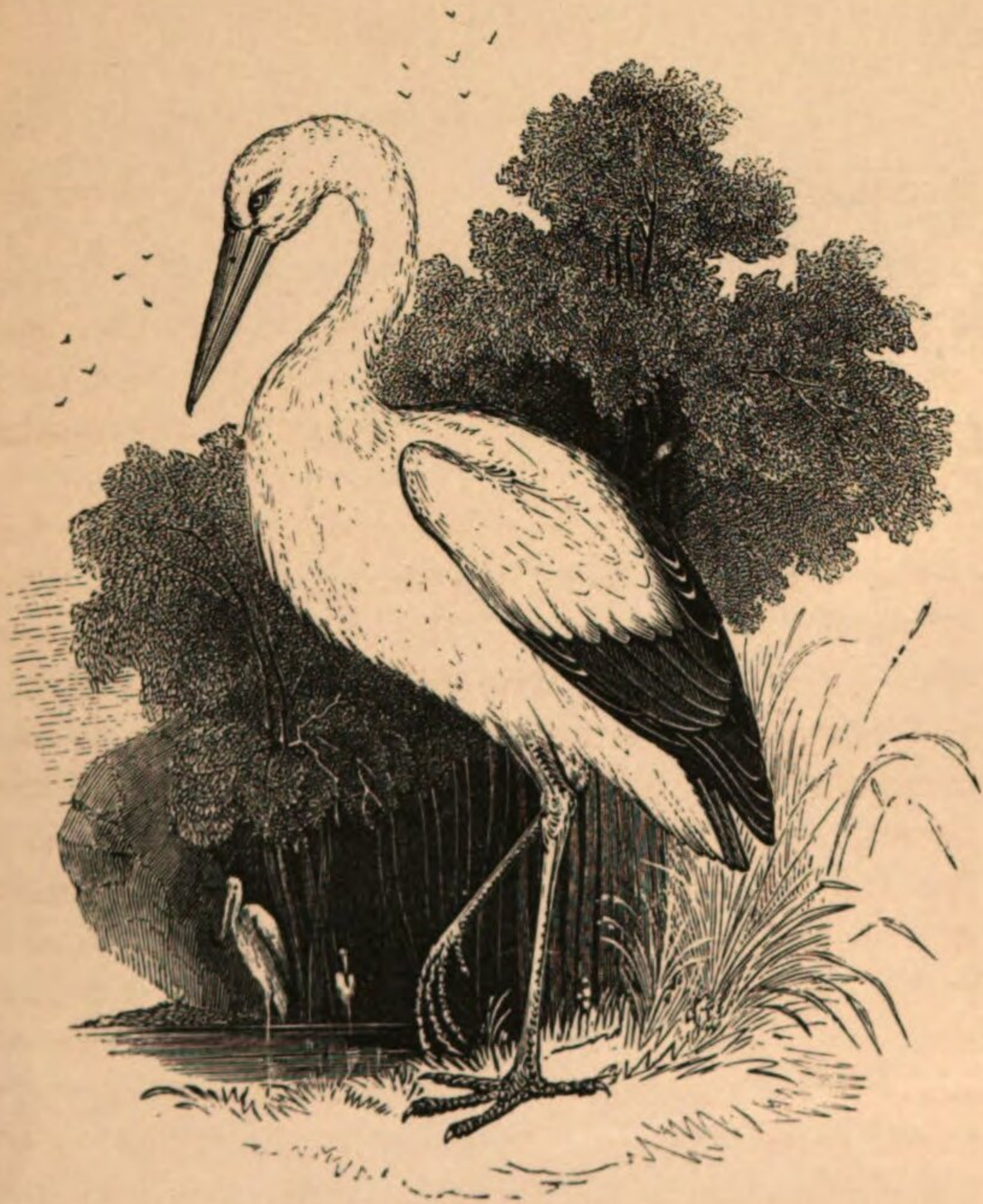
THE STORK.

חַסִּידָה, CHASIDAH. *Mercy.*

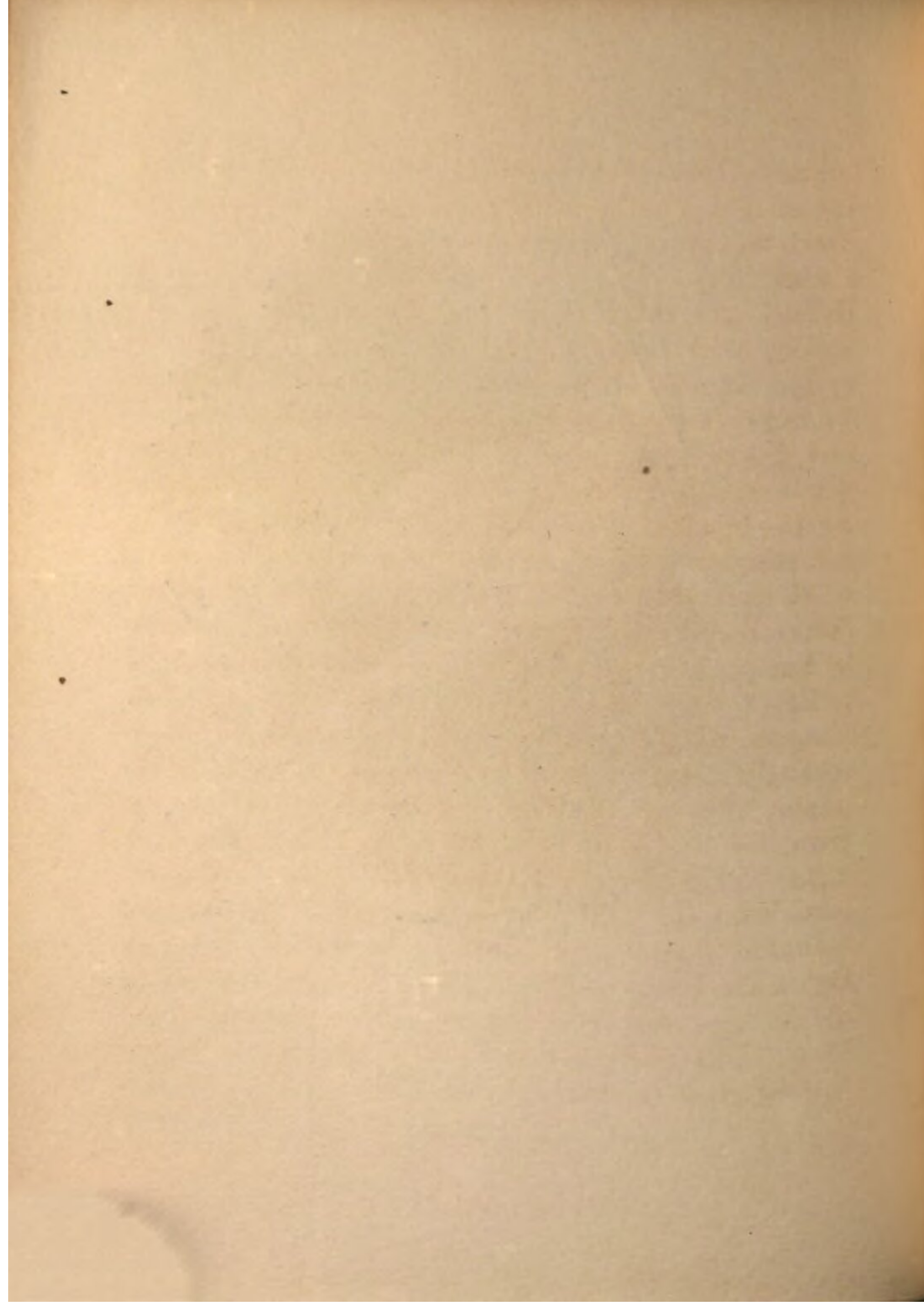
PSALM CIV. 17.—“*As for the stork, the fir-trees are her house.*”

ARDEA CICONIA, or white stork, in ornithology, belongs to the genus of the order of *grallæ*. Under this genus Linnæus comprehends the crane, the heron, and the stork.

The stork has naked eye-balls, the prime feathers of the wing are black, its plumage is white. The skin below the feathers, as also the beak, feet, and claws, are of a blood colour. The bill is straight, sharp, long, and somewhat compressed, with a furrow that runs from the nostrils towards the point; the nostrils are linear; and the feet have four toes. Storks are about the size of a goose, but when they stand erect, they are about three or four feet high. They feed upon frogs, lizards, serpents, and insects. But it is singular they will not eat toads, and the elder storks act the part of kind parents, they carefully teach their young not to eat them. They take them up, lay them down before their young, and then toss them away, as injurious and disgusting. Thus they teach them by parental instruction to avoid and reject what is injurious. Let human parents be equally careful of the moral interests of their offspring, in teaching them to avoid what is in-



THE STORK

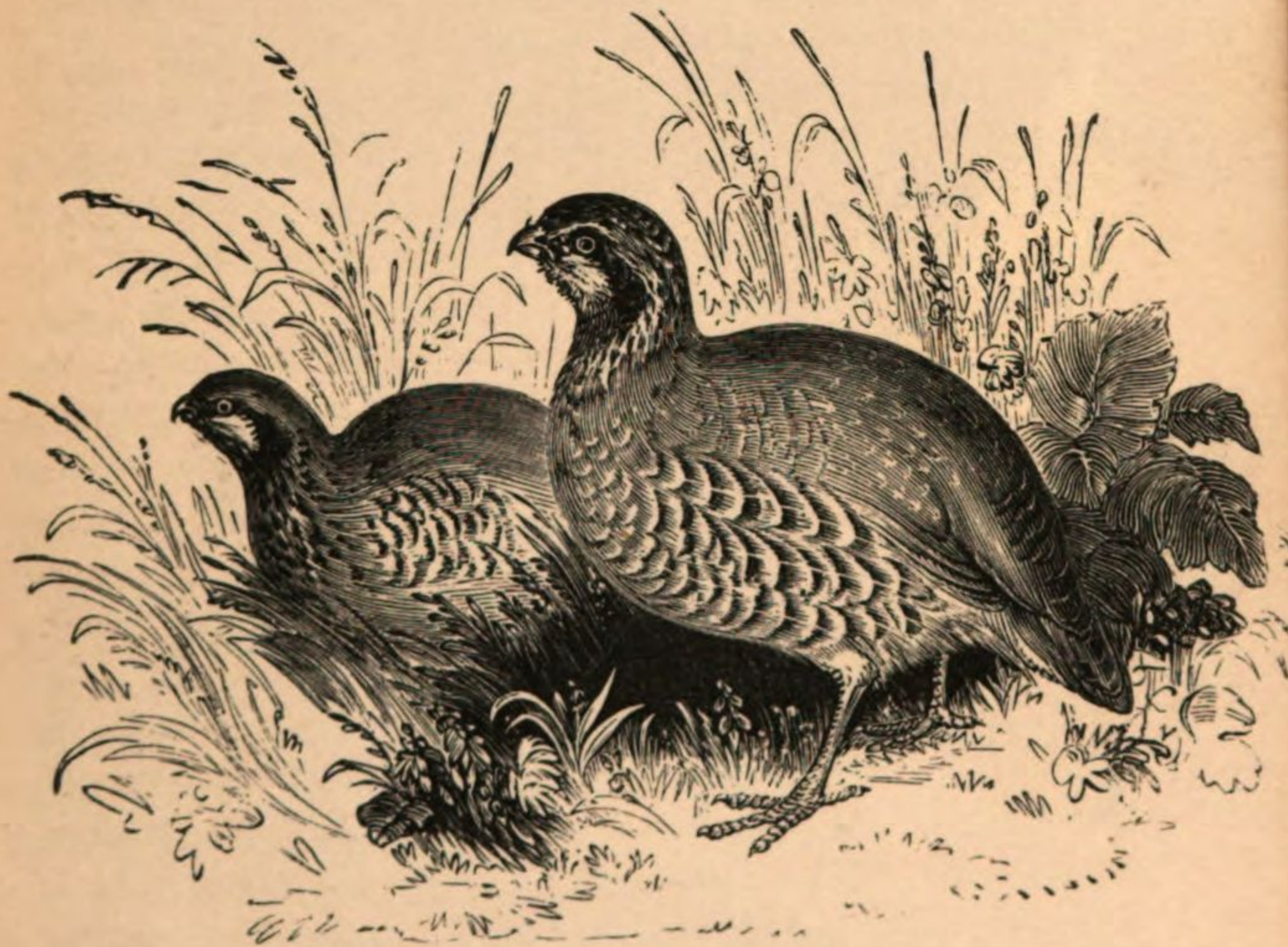


jurious to their present welfare and eternal happiness. The stork is a native of Europe, Asia, and Africa. It is such an enemy to serpents, that it is reckoned almost a crime to kill it. They are treated so favourably in Holland and the Low Countries, that they are seen walking in the streets unconcerned and in perfect security. In Canaan they built their nests on fir-trees, but in Europe on towers and tops of houses. In Holland, I saw great quantities of their nests on the tops of houses, and, if I mistake not, churches. Storks render the inhabitants of Holland the greatest service by devouring frogs, and thus repressing their number, which otherwise would prove an intolerable calamity. Storks are birds of passage; they spend the summer in Europe, and immediately before winter they go off to Egypt, Ethiopia, and other southern countries, and return about the middle of March. Storks are exceedingly careful of their young;—one parent is always present with the brood, and when they lead out the young by day, they bring them back to the nest at night. They carefully teach them to fly, and to reject pernicious food. The love of the young to the old and infirm, is equally remarkable. In their migratory flights, the young and vigorous are actually seen assisting the aged and feeble, by supporting them on their backs. The stork, therefore, is worthy of the name *chasida*, which signifies “*mercy*.”

COMMON PARTRIDGE.

קָרָא, KRA, OR KORA. *Cry of the Partridge.*1 SAM. XXVI. 20.—“ *When one doth hunt a partridge in the mountains.*”

IN ornithology, the partridge belongs to a genus of birds of the order of *gallinæ*. The bill is convex, strong, and short; the nostrils are covered above with a callos prominent rim; the orbits are papillose; the feet naked; and most of the genus are furnished with spurs. Their flesh is good to eat; their flight is low and of a small compass, and they run almost as soon as hatched. Partridges are found almost in every country, and in every clime, from the torrid tracts under the equator, to the frozen regions of the pole. It is very striking, how, by the kind arrangements of the Creator, this interesting bird becomes assimilated and adapted to the climate of Greenland in winter. As soon as the icy winter sets in, it is clothed with a warm down beneath, and its outward feathers become as white as the snow among which it seeks its food. In warmer climates near the equator, they are long-legged, much swifter of feet, and choose for their residence the highest rocks and precipices. It is said, that on the lofty Alps the partridges are white, and their feet protected by hair. Common partridges delight most in corn-fields while the corn is growing,



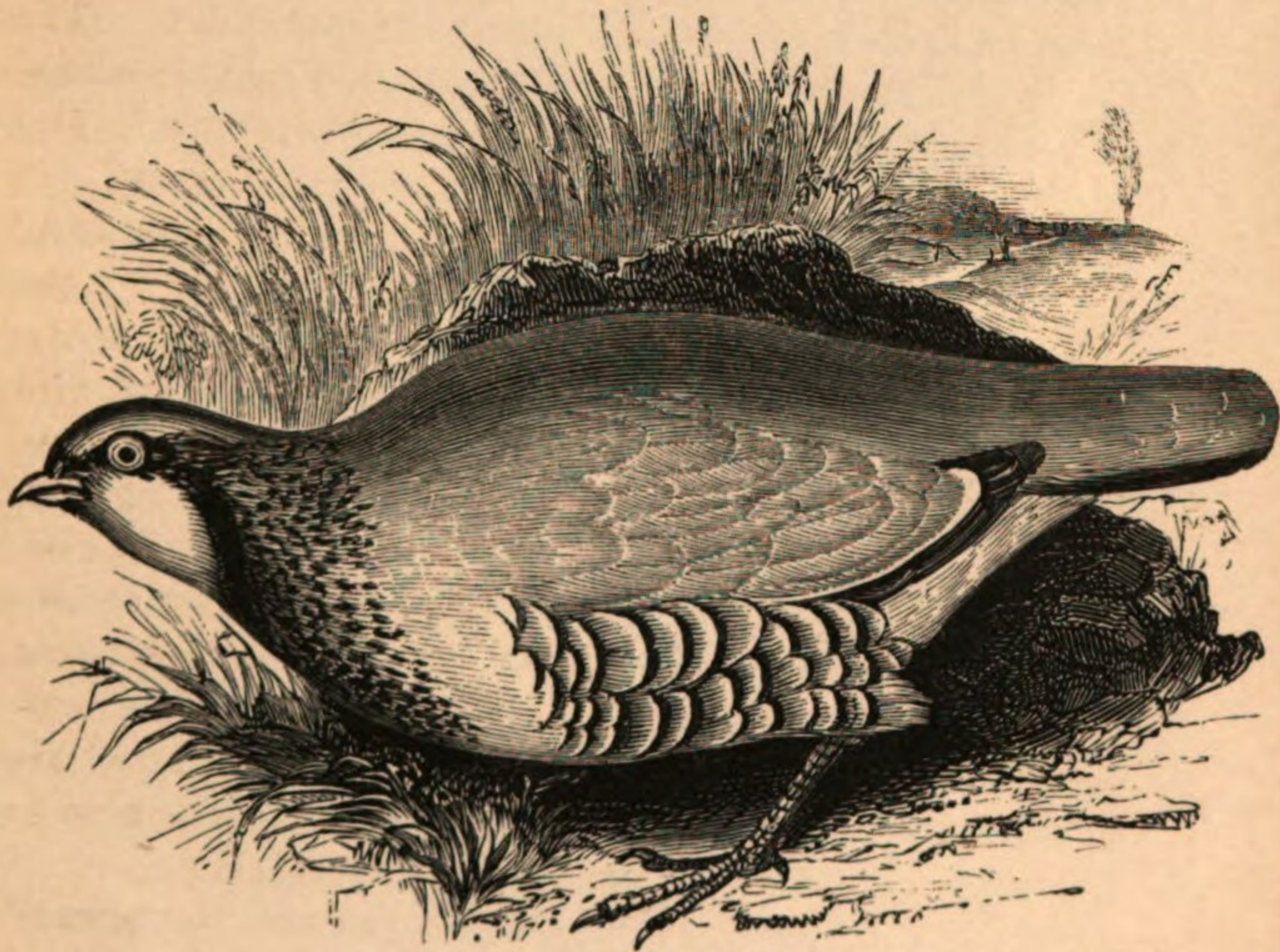
THE COMMON PARTRIDGE

where they shelter and breed. In winter, when the stubble-fields are ploughed up, they resort to the upland meadows, and lodge among the dead grass, under hedges, among mole-hills, or under the roots of trees. In the harvest, when every field is full of men and cattle, during the day they frequent fallow-fields adjoining corn-fields, and when evening arrives and the labourers are removed to their homes, these birds very wisely leave the fallow-fields and enter into the fields of corn, where they may feed without any fear of interruption from man. The nest of the partridge which is placed upon the ground in corn-fields, meadows, &c., contains from twelve to twenty eggs of a green ash-colour. The maternal affection is truly remarkable. Pennant records a strong instance. "During a violent storm of rain, a partridge, attended by a large covey of young birds, spread her wings over them to secure them from further injury, but all in vain! The storm increased in violence, but she would not quit her charge. She preferred death, and we found her lifeless with all the little brood, her wings spread over them, retaining her attempt to preserve them, even to the very article of death!" Lovely example of maternal affection!

RED-LEGGED PARTRIDGE.

THE leading characters of the red-legged partridge are the same as those of the common partridge. The *perdix rubra*, the common *red-legged partridge*, is abundant in France and Italy, rare in Switzerland, and still more seldom found in Holland and Germany. It is met with in Japan, identical in form and colour of plumage. The red-legged partridge is known by the name of Greek partridge, or *bartavella*; and it is the opinion of most judicious writers, that this is the bird to which allusion is made in the Holy Scriptures. This bird is introduced into the preserves in England. In the countries of which it is a native, it keeps ordinarily among rocks, while it has the instinct to descend into the plains to make its nest, in order that the young when they are hatched may find a sufficiency of subsistence. Red-legged partridges are most determined runners, and few birds are so able to puzzle a well-bred and a well-broken pointer.

The partridge is only mentioned in two passages of Scripture. The first occurs in the history of David, in reference to the severe, cruel, and incessant persecutions which he endured at the hand of Saul. Exposulating with the king, he says, (1 Sam. xxvi. 20,) "The king of Israel is come out to seek a flea, as when one doth hunt a partridge upon the mountains." This was evidently a partridge which habitually frequented



THE RED-LEGGED PARTRIDGE.

rocky places and mountains; and the red-legged partridge is the only species to which this so particularly applies. Some light is thrown upon this figurative expression of David, by the method employed by the Arabs in hunting the partridge. In pursuing the partridges, when they observe them become faint, they immediately run in upon them and knock them down with their bludgeons. Exactly in this way Saul hunted David, coming suddenly upon him from time to time, in hopes that by frequent repeated attempts he should at length destroy him.

This bird is mentioned in Jer. xvii. 11: "As the partridge sitteth on eggs and hatcheth them not; so he that getteth riches, and not by right, shall leave them in the midst of his days, and at his end shall be a fool." If the eggs of a partridge are destroyed, it will take possession of the nest and eggs of another bird. But when the proper parent comes, the partridge is expelled, and therefore does not hatch the eggs on which it sat. Such is the case of him who is obliged to relinquish wealth which he has unjustly claimed.

SYRIAN HARE.

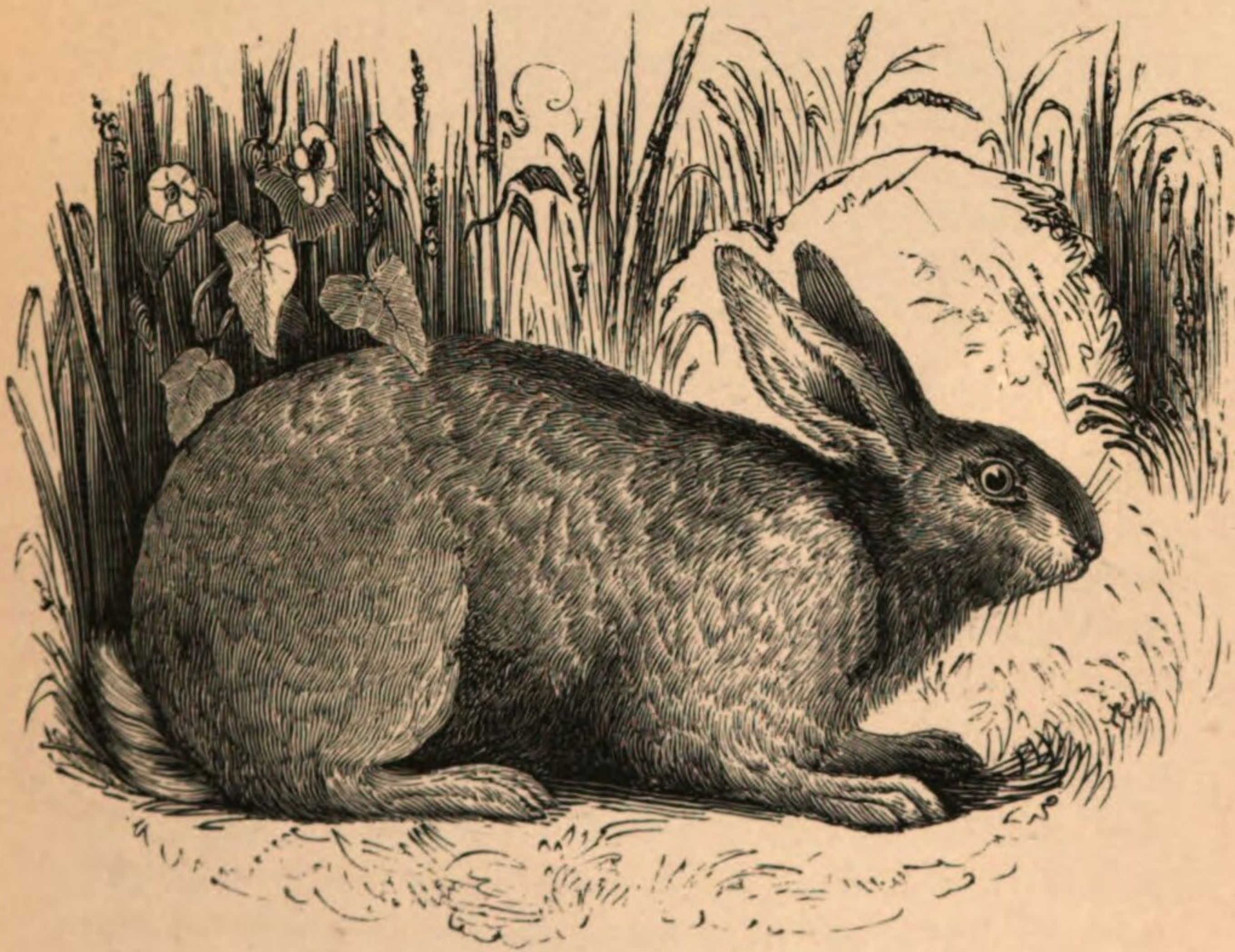
אַרְנֶבֶת, ARNEBETH. *Cropping herbage.*

LEVIT. XI. 6.—“ *And the hare, because he cheweth the cud, but divideth not the hoof; he is unclean unto you.*”

It seems there are two species of hare in Syria; the Turkman hare, which is the largest, chiefly inhabiting the plains; and the common hare, or *lepus timidus*, commonly found in the desert.

The hare, or *lepus* in zoology, is a genus of the mammalia class of quadrupeds. The following are the characters of the genus: they have two fore-teeth in each jaw; those in the upper jaw are double, the interior ones being the smallest. The fore-feet are provided with five toes each, and the hind-feet with four. There are fifteen species.

The *lepus timidus*, or common hare, is a well-known animal, with a short tail, black eyes, and long ears tipped with black, admirably adapted for hearing the slightest sound; here showing the kindness of Providence, as its chief protection consists in flight. The upper lip is divided up to the nostrils, and its feet are excellently formed for running, especially up-hill, the fore-legs being the shortest, and the hind-legs, by their length and elasticity, being formed to enable the animal to spring forward and leap to an astonishing



THE SYRIAN HARE.

distance,—all contributing to its safety. It is remarkably timorous, and hence the name *timidus*, or fearful. Moses informs us that it chews the cud. Aristotle, the philosopher, also affirms the same thing; saying, that it has a runnet, similar to other beasts that chew the cud. Cowper, the celebrated poet, had three tame hares, and therefore had favourable opportunities for observing and studying the habits of this creature. He affirms, that they chewed the cud all day till evening. The length of the hare is about a foot and a half, and the hair is reddish, interspersed with white. It sleeps during the day, and feeds during the night, as being less likely to be disturbed by man. In a moonlight night, they will be seen in numbers sporting together; but the least sound will alarm them, when they will instantly break up their little parties, and then will all run off separately, each pursuing a different course. They are extremely swift, and their motion is a kind of gallop, consisting of successive leaps. In attempting to escape from their pursuers, they discover much natural ingenuity. As for example; they never run against the wind, or straight forward; but constantly double to make the dogs lose their scent. It is said, the flesh of the hare is unwholesome in warm climates, and therefore properly forbidden by the law of Moses.

HERON.

הַדְּיָן, ANAPHA. *Breathing short.*

LEVIT. XI. 19.—“*The heron after her kind.*”

IN ornithology, the heron is a species of the *ardea*, and of the order of *grallæ*. The *ardea major*, or common heron, has a black crest hanging down from the back part of the head, the body is variegated with black and white, and below bluish; the bill of a deep yellow; the iris yellow; the skin of the eye naked, and of a bluish purple; the feet brown, but yellowish towards the feathered part; the beak and legs are long; their under and upper chaps are alike in length; and they have four long, connected toes on each foot. It is a tall bird, very light in proportion to its size; in weight about three pounds and a half. The length is three feet two inches, and the breadth from tip to tip of extended wing, five feet four inches.

The heron is a bird found almost in every part of the world, but stationary in Britain. At the season of reproduction they congregate in great numbers at their stations, or heronries, for which the loftiest trees are selected. More than eighty nests have been counted on one tree. The nest, which is large and flat, is built of sticks, lined with wool, or other soft materials, on which are deposited four or five bluish-green, lustreless eggs. The young, which are rather unseemly to



THE HERON

look upon, remain in the nest for five or six weeks, during which time the old birds are most attentive in supplying them with fish and other food. Some furious battles have taken place betwixt the herons and rooks, in attempting to take possession of the nest-trees. Buffon speaks of the heron as a picture of wretchedness. When fishing, it stands immoveable as a stump, with the neck bent between the shoulders, watching for the passing fish, which, with unerring certainty, it spears with its bill. The food of the heron is diversified ;—fish, frogs, reptiles, mice, water-rats, and even young water-fowl. It is surprising how many fish an heron will devour in one day ; even in that period it has been known to eat fifty moderate-sized dace and roaches. It has been found in carp-ponds visited by this bird, that it will eat up a thousand in one year, and hunt them so close that few will escape.

Heron is lustful and irritable, and may be considered as figurative of men who are soon angry, lustful, and high-minded. Under the law they were unclean. (Deut. xiv. 18.)

WEASEL.

חלך, CHOLED. *To creep in.*

LEVIT. XI. 29.—“*These shall be unclean unto you among the creeping things that creep upon the earth; the weasel.*”

IN ornithology, the weasel belongs to *mustela*, a genus of quadrupeds of the order *feræ*. In each jaw there are six cutting-teeth; those of the upper jaw are erect, sharp-pointed, and distinct; and those of the lower jaw are blunter, and huddled together, and two placed within the line of the rest. The tongue is smooth. Both otters and weasels are included under this genus. There is a great difference betwixt these two; the otters are amphibious, much in the water, subsisting chiefly on fish, whereas, the weasels confine themselves wholly to the dry land.

Of weasels there are twenty-nine species, including the various descriptions of ermines, whose skins contribute to the costly splendour and comfort of the robes of princes.

The common weasel, or *mustela vulgaris*, is of a pale reddish-brown colour, with the throat, breast and lower part white; the head and body measuring seven inches, and the tail two and a half. This species inhabit the northern parts of Europe, Asia, and America, and are found in the northern provinces of Persia, and



THE WEASEL.

also in Barbary. It is striking, and even humiliating to observe how the inferior animals discover in their inclinations, habits, and pursuits, the effects of the fall of man. For example, see the blood-thirsty and destructive practices of the weasel; it falls upon and destroys birds, poultry, moles, and young rabbits. They eat eggs voraciously when they come within their reach. They do not eat their prey where they kill it, but carry it off to their young. Such is the rapidity with which they kill their prey, that they deprive it of life by a single bite near the head. They show great agility, and run up the sides of walls with such ease, that scarcely any place is secure from them. As their body is small and remarkably flexible, they can easily enter into very narrow openings for carrying on their bloody ravages. They frequent barns and granaries, where they spread dreadful havoc among the mice and rats, being even more formidable enemies to these creatures than the cat. They often take up their abode in old willows, where the female brings forth her young from six to eight in number. She has a large portion of maternal care. She prepares for them a bed of straw lined with leaves and other herbage. The young are born blind. In pursuing their prey, weasels bound to a great length.

FERRET-WEASEL.

THE *mustela furo*, or the ferret-weasel, has red and fiery eyes; the colour of the whole body is a very pale yellow; the length from nose to tail is about fourteen inches, and the tail about five. In their wild state they are inhabitants of Africa. When Spain was overrun with rabbits, they were imported into that country, that the nuisance might be suppressed, and from thence have been introduced into the other parts of Europe. They are unable to bear cold, and cannot even subsist in France, except in a domesticated state. In our northern climates, they cannot find subsistence for themselves, and therefore are wholly dependent on man for their support. The female ferret is less than the male. Ferrets are brought up in casks, or boxes, where they are furnished with beds of hemp and flax. They sleep a great proportion of their time; and when they awake search eagerly for food, which chiefly consists of brawn, bread, and milk. They are mortal enemies to rabbits, and seem destined by Providence to keep within proper limits the great fecundity of these animals. Some of them have been found to devour their young as soon as brought forth. They have two litters in the year, generally consisting of from five to eight. When a dead rabbit is for the first time presented before a young ferret, he flies upon it and bites it with fury.



THE FERREI-WEASEL.



THE CUCUMBER.

If it be alive, he seizes it by the throat or the nose, and sucks its blood. When a ferret is introduced into the burrows of rabbits, it is most safe to muzzle him; for in this case, he is prevented from killing them in their holes, and only obliges them to come out and be caught in the nets. If the ferret is put in without a muzzle, he is in danger of being impelled by his natural propensity and instinct to suck the blood of the rabbit, when he generally falls asleep, and may thus be lost. Ferrets are used for dislodging rats, and also for catching birds in the holes of walls and old trees. It is easily tamed, but very irascible. He has an offensive odour, and when irritated is much more offensive. In this he is figurative of man, when he gives way to angry passion and unsubdued temper. All the movements of the ferret-weasel are nimble; and he is at the same time so vigorous, as to be able to overcome a rabbit, though four times larger than himself.

CUCUMBER.

קִישַׁיִם, KISHAIM. *Hardening.*

NUM. XI. 5.—“ *We remember the fish which we did eat in Egypt freely; the cucumbers and the melons.*”

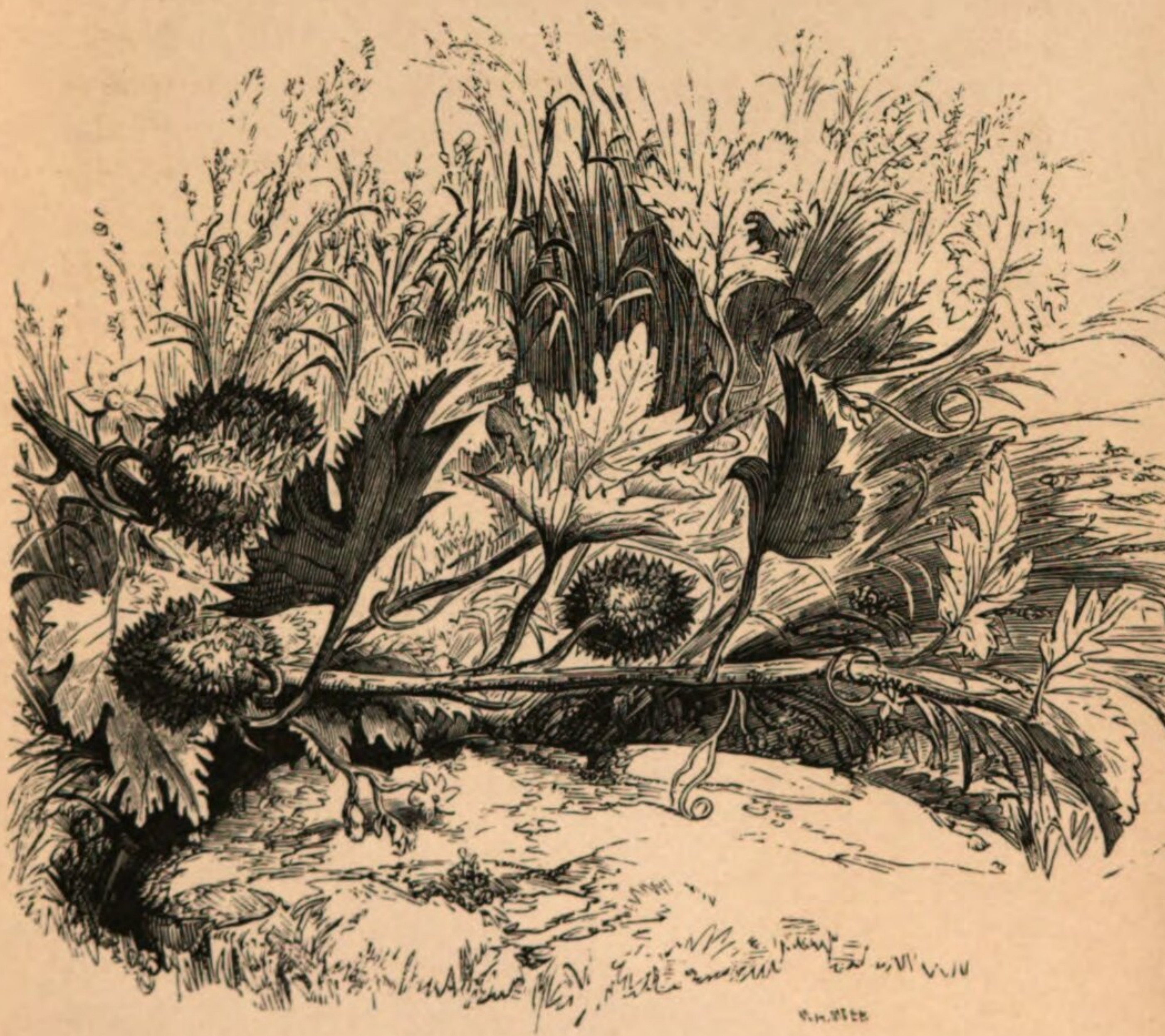
In botany, the *cucumis*, or cucumber, is a genus of the *syngenesia* order, and belonging to the *monoecia* class of

plants. The flower consists of one leaf fashioned like a bell, divided into several parts. The fruit is fleshy, like an apple, containing three cells where the numerous seeds are placed in two rows. Some of the flowers are male, having a large style in the middle charged with the farina; others are female, being fastened to an embryo, which is afterwards changed into a fleshy fruit, for the most part oblong and turbinate, and which is divided into several cells containing many oblong seeds.

Turnefort, the naturalist, says, there are six kinds of cucumbers.

THE GLOBE, OR OVAL CUCUMBER.

THE botanical name of the globe or oval cucumber, is *cucumis utelissimus*. It is an annual, a native of India, but found in other countries in a cultivated state. The stems exactly resemble those of *cucumis sativus*, or common cucumber, but not quite so extensive. Both the male and female flowers are yellow, and about an inch, or an inch and a half in length. The fruit is fleshy, and generally a very perfect oval; when young, downy and clouded with lighter and darker green; when ripe, perfectly smooth, variegated with deeper and lighter yellow; in length, from four to



THE GLOBE, OR OVAL CUCUMBER



THE COMMON CUCUMBER.

six inches long, and from three to four inches in diameter. When ripe, the fruit is about as large as an ostrich's egg, smooth and yellow. When cut, they have much the flavour of the melon, and will keep for several months, if carefully gathered and hung up without being bruised. In this state they are eaten raw, and much used as *curries* by the native Indians. The seeds contain much farinaceous matter, blended with a large proportion of mild oil. These seeds the natives grind into meal and employ as an article of food. An oil is expressed from the seed which is used in food, and also to burn in lamps. The powder of the toasted seeds mingled with sugar, is possessed of very valuable medicinal qualities.

Thus, wherever we look we see manifestations of the goodness of God, not only in the abundance he has provided for man's subsistence, but also for the cure of those maladies to which he is exposed.

COMMON CUCUMBER.

ISAIAH, I. 8.—“*And the daughter of Zion is left as a cottage in a vineyard, as a lodge in a garden of cucumbers.*”

THE common cucumber, or *cucumis sativa*, has roots composed of numerous long, slender, white fibres;

long slender stalks, very branchy at their joints, trailing on the ground, or climbing by their claspers, adorned at every joint by large angular leaves, with numerous monopetalous bell-shaped flowers of a yellow colour, succeeded by oblong, rough fruit.

Of the common cucumber, there are eight varieties. Those most generally cultivated in Great Britain are the following:—the common rough, green, prickly cucumber, about six or seven inches long. It is of the hardiest sort. The next is the short, green, prickly cucumber, about three or four inches long, and valuable as being both hardy and early. There is also the long, green, prickly cucumber, from six to nine inches in length.

It is surprising the great length to which cucumbers may be brought by culture. Once I saw a cucumber nearly three feet in length, in the garden of James Stirling, Esq., of Keir, near the ancient and royal town of Stirling.

Cucumbers grow very plentifully in Egypt, and are of a quality much superior to ours. It is as common for the Egyptians now, as it was in the days of Moses, when Israel was in that country, to eat melons, cucumbers, and onions. There is a cucumber in Egypt called *chaté*, which some learned men consider to be that description for which the children of Israel so earnestly longed. It differs somewhat from the common sort in size, colour, and softness, and is also more palatable and wholesome. From its cooling properties



NUTS.

it is a very useful medicine in Egypt. Its pulp beaten up with milk reduces and removes inflammation, particularly that of the eyes.

There is one thing peculiar about the genus to which cucumbers belong, namely, in their species having the power of adapting themselves to the different situations where they may be grown. For instance, they afford a large juicy fruit in the midst of Indian deserts, where water is three hundred feet from the surface of the earth. And they are also found growing luxuriantly in situations of the greatest moisture. How acceptable when found by the thirsty traveller in the sandy waste!

NUTS.

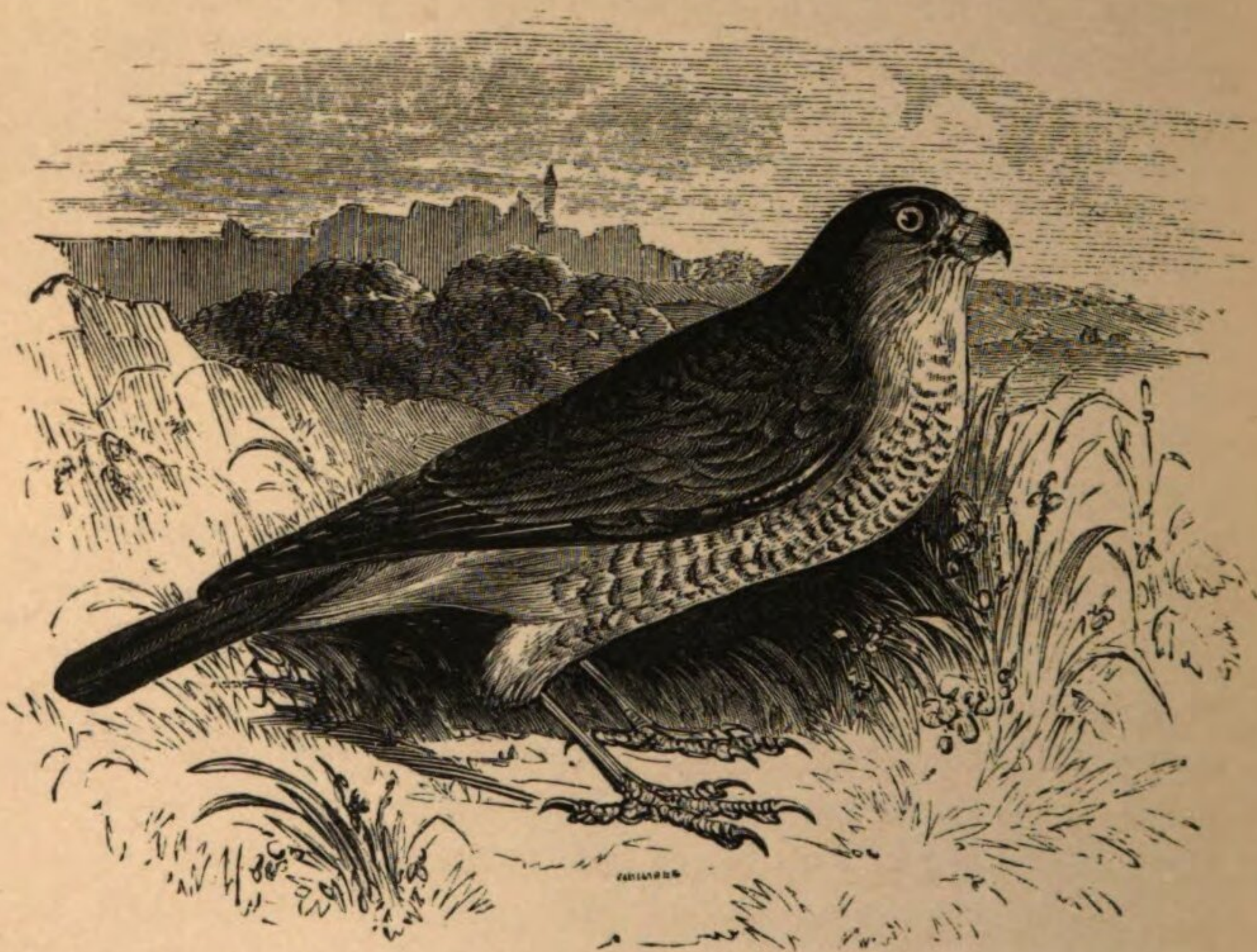
בטנים, BATANIM. *Belly.*

GEN. XLIII. 11.—“*And their father Israel said unto them, if it must be so now, do this: take of the best fruits in the land in your vessels, and carry down the man a present, a little balm, and a little honey, spices and myrrh, nuts and almonds.*”

VERY celebrated writers, such as Bochart, Celsus, and Dr. Shaw, are of opinion that the nuts which the sons of Jacob carried into Egypt, were the fruits of the *sia-tachio*. This tree was once peculiar to Syria; thence

it was brought into Europe by Lucius Vitellus, governor of Syria. Since that period it has spread over the shores of the Mediterranean. The sloping hills to the south and south-west of Aleppo are beautifully laid out in vineyards, olive-plantations, and gardens of figs. Among the varied assemblage, the pistachio-tree is found growing in luxuriance.

This tree is a genus of the *pentandria* order, and belonging to the *diœcia* class of plants. As it grows naturally in Arabia, Persia, and Syria, the nuts are annually brought from these places to Europe. Its common height in these countries is from twenty-five to thirty feet. The bark of the stem and of the old branches, is of a dark russet colour, while that of the young branches is of a light brown. These are enriched with winged leaves, composed sometimes of two, and at other times of three pairs of lobes, terminated by an odd one. These lobes approach toward an oval shape, and their edges are turned backward. When bruised, they send forth a smell similar to that of the nut. Some of these trees produce male, and others female flowers; and some have both male and female on the same tree. The male flowers come out from the sides of the branches in loose bunches; but the female flowers come out from the sides of the branches in clusters. These are followed by oval nuts. The nuts are provided with a double shell. The external shell is membranous, thin, dry, brittle, and when ripe, reddish. The kernel is of a pale greenish colour;



THE HAWK

of an oily sweetish taste, and very agreeable to the palate.

In Song vi. 11, saints are likened to nuts, because in their outward appearance they are mean, but within precious and lovely with grace.

HAWK.

נֶזֶז, NETZ. *To fly.*

JOB, XXXIX. 26.—“*Doth the hawk fly by thy wisdom, and stretch her wings toward the south.*”

THE name *netz*, signifying to fly, is given to the hawk, because of the rapidity and length of flight for which this bird is remarkable. This bird was forbidden to be eaten by the Mosaic Law, because it is a bird of prey, in its manners gross, and in its temper cruel. (Levit. xi. 16; Deut. xiv. 12, 15.) “But these are they of which ye shall not eat, the owl and the night-hawk, and the cuckoo, and the hawk after his kind.”

The following are the leading characteristics of *hawks* properly so called:—the beak is short and curved from its base; the legs are robust; the toes strong, long, and armed with hooked and pointed claws; the wings are long and pointed. As most of them are *docile*, and are capable of being trained to the diver-

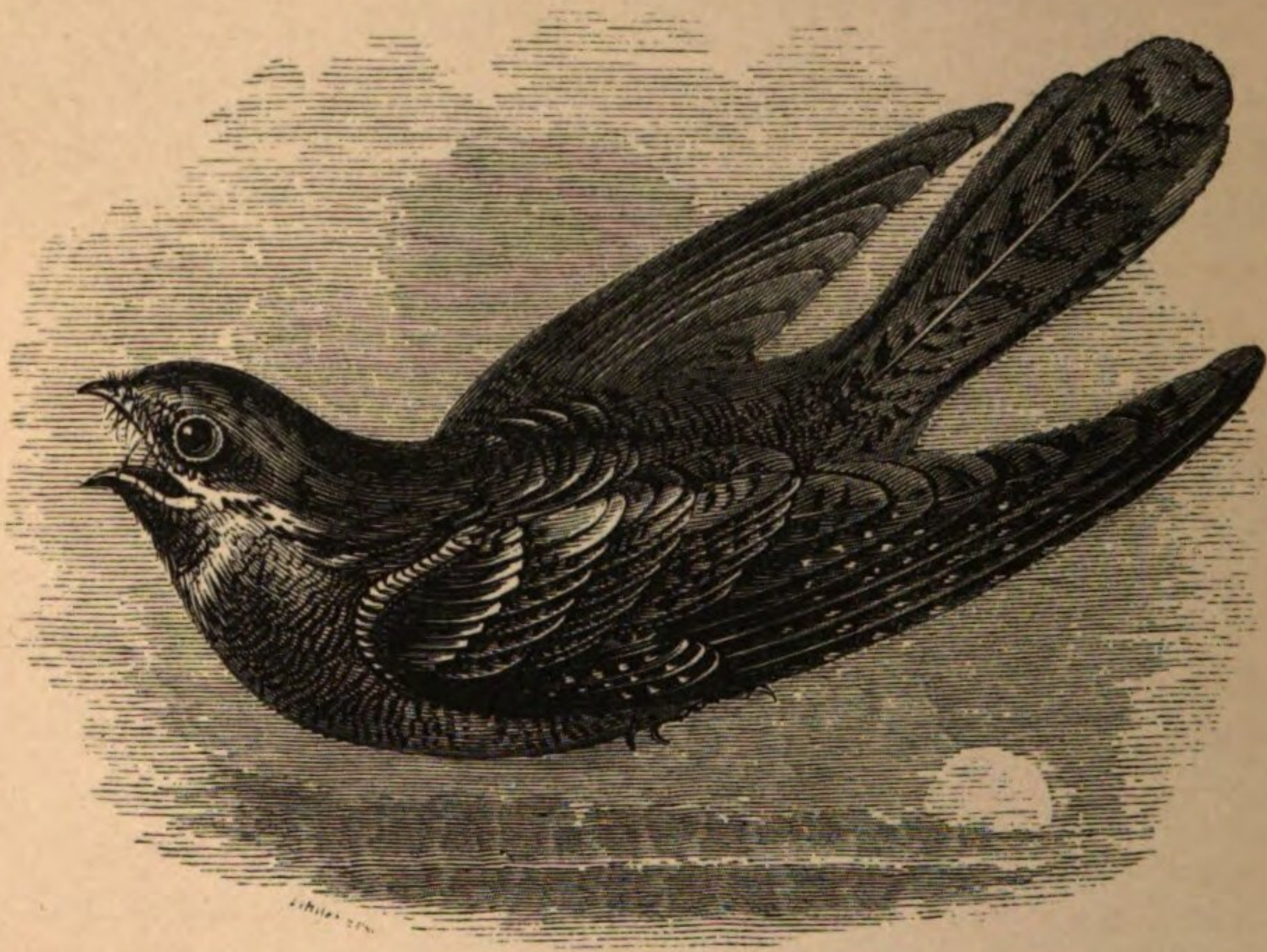
sions of falconry, which was so much in vogue in ancient times, they have been denominated *noble birds of prey*. They show great address and activity in surprising and seizing their prey. Their favourite places for building their nests are crevices of rocks, or forsaken ruins.

The common hawk, or *falco-communis*, is brown above, with rufous, or reddish undulations; the tail is marked with dusky bars; the breast and belly whitish, with dusky spots.

This falcon is an inhabitant of the colder and temperate parts of Europe, from Iceland to the Mediterranean. About the end of February they build their nests in lofty precipitous rocks having a southern aspect. The rock on which the castle of Dumbarton stands, has been long mentioned as a place famous for the breed of the common hawk. The growth of the young is peculiarly rapid. In three months they are equal to their parents in size. The eggs are generally three or four, and white, spotted with brown.

Hawks are very courageous birds. They dart suddenly, perpendicularly, and with great rapidity upon their prey. This chiefly consists of partridges, pheasants, quails, wood-pigeons, &c., and the smaller quadrupeds. They also attack the kite, and oblige it to relinquish its victim, but spare its life, as if in contempt of an adversary so inferior to itself.

We will add some additional information at the close of the next article.



THE NIGHT-HAWK.

NIGHT-HAWK.

תחמס, TACHMAS. *Armed.*

LEVIT. XI. 16.—“*The owl, the night-hawk, and the cuckoo.*”

THE name of this bird strikingly indicates its nature and habits. Thus the vileness and wickedness of Satan are expressed by the various names given him in the Sacred Oracles. The night-hawk is very voracious, and it employs the night for its deeds of darkness and cruelty. In this it may be considered an emblem of those of our own species who select the night for those deeds of uncleanness which cannot bear the light of day.

By some naturalists this bird is considered as the *strix orientalis*. Hasselquist thus describes it: “It is of the size of the common owl, and lodges in the large buildings, or ruins of Egypt and Syria, and even in dwelling-houses. The Arabs settled in Egypt call it *masasa*, and the Syrians, *banu*. It is extremely voracious in Syria; to such a degree, that if care is not taken to shut the windows at the coming on of night, it enters the house and kills the children. The women, therefore, are very much afraid of it.” This voracious bird and nightly robber was pronounced unclean, and forbidden to be eaten by the law of Moses.

SWIFTNESS OF HAWKS.

Various instances are recorded of the fleetness of the flight, particularly of the *falco-communis*, or common hawk. One that eloped from its master in Forfarshire, in September 24th, 1772, with four heavy bells at its feet, was killed two days after in the morning at Mostyn in Flintshire, a distance of more than four hundred miles. Another, belonging to a Duke of Cleves, flew out of Westphalia into Prussia in one day. In the county of Norfolk, one was known to pursue a woodcock at the rate of nearly thirty miles in an hour. Another instance; a falcon which belonged to Henry, King of France, and which, having escaped from Fontainebleau, was found twenty-four hours after in Malta; the space thus traversed being not less than one thousand three hundred and fifty miles, and corresponding to a velocity of fifty-seven miles in an hour, supposing the bird to have been on wing the whole time.

The swiftness of the hawk's flight may be considered emblematical of the murderer spoken of in Scripture, "as swift to shed innocent blood."



FRANKINCENSE.

FRANKINCENSE.

לבונה, LEBONAH. *White.*

MATT. II. 11.—“*And when they had opened their treasures, they presented unto him gifts, gold, and frankincense, and myrrh.*”

FRANKINCENSE is of frequent occurrence in the Holy Scriptures. The scientific name is *gum olibanum*. It is obtained from the *boswallia thurifera*, and is chiefly collected in India. It is the frankincense of the ancients. It is in transparent brittle masses, about the size of a chesnut. Its colour is yellow; the taste is bitter and nauseous; and when burnt diffuses an agreeable odour. This sweet-smelling gum was much used in ancient temples, and is now used in medicine. It is distilled from incisions made in the tree during the heat of summer. The largest and best trees are called male-incense; the whitish, drawn at the end of summer, are better than those drawn at the beginning. Some frankincense is brought from the East Indies, but is not equal to that imported from Arabia or Syria. There is considerable doubt as to the form of the frankincense-tree.

The Roman Catholics perfume their temples and altars with incense. The word is of Latin origin, and signifies burnt.

The burning of incense formed a part of the daily

service of the ancient Jewish church. The priests drew lots to know who should offer it. The person on whom the lot fell took a large silver dish, in which was a censer full of incense, and being accompanied by another priest, carrying some live-coals from the altar, went into the temple. There, in order to give notice to the people, they struck upon an instrument of brass placed between the temple and the altar; and being returned to the altar, he who brought the fire left it there and went away. The quantity of incense offered each day, was half a pound in the morning, and as much in the evening. One reason of the continual burning of incense might be, that the numerous victims which were continually offered up, would have made the temple as offensive as a slaughter-house, and, consequently, would have filled the worshippers with disgust, rather than with awe and reverence, had not the smell been overpowered by the agreeable fragrance of these perfumes.



THE CHAMELEON.

CHAMELEON.

תנשמת, THINSEMETH. *To breathe ;*

AND

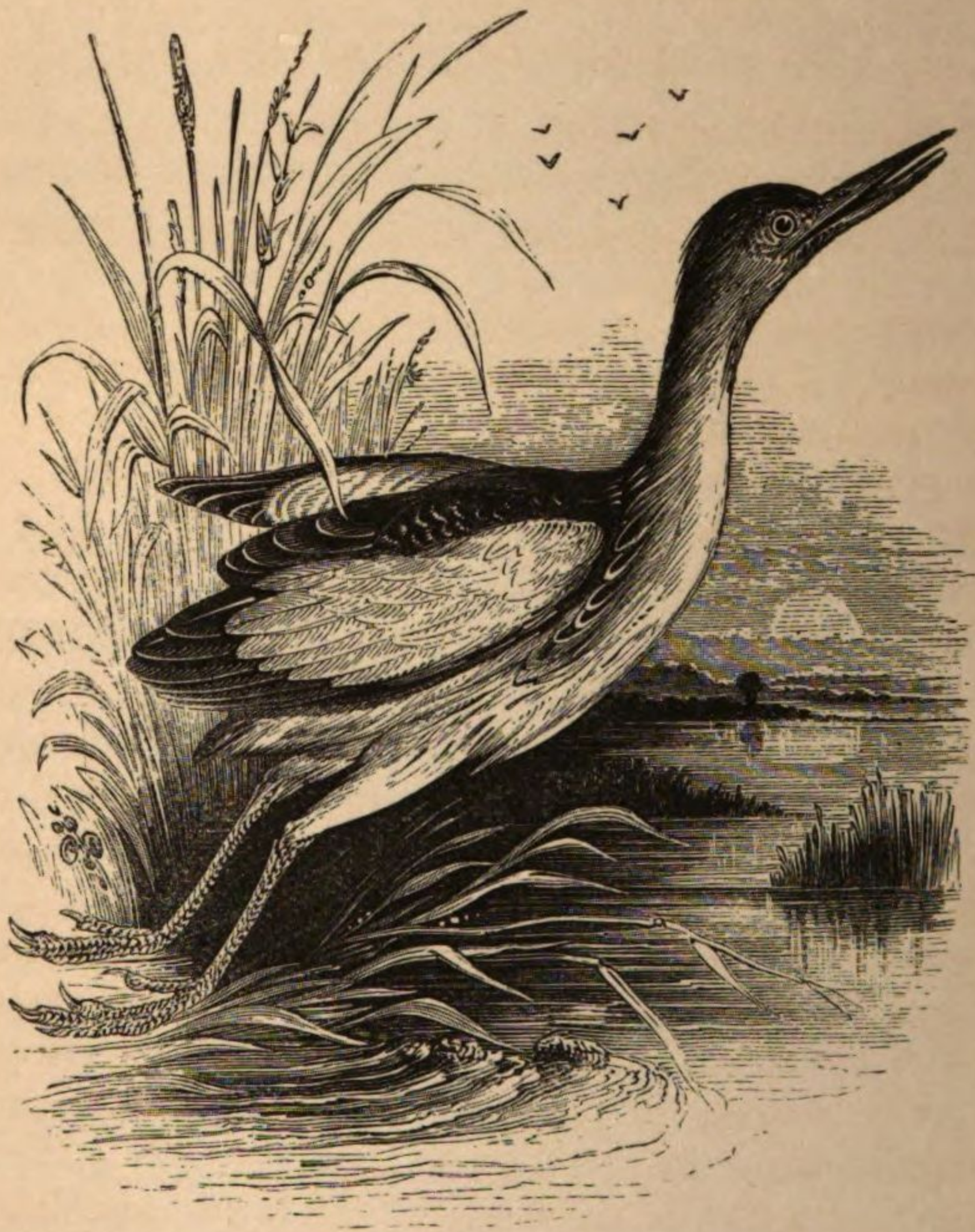
כח, COACH. *Strength.*

LEVIT. XI. 30.—“ *And the ferret, and the chameleon, and the lizard.*”

THE chameleon, in zoology, belongs to the genus of *lacerta*, or *lizard*, animals which are amphibious. The body is naked, with four feet and a tail. The head of a large chameleon is almost two inches long, and from thence to the tail four inches and a half. It has no neck. The tail is five inches long, the feet about two and a half, and each foot provided with five toes. It has no ears, and discovers no sense of hearing. Its tail is long ; and with this, as well as with its feet, it fastens itself to the branches of trees. Its nose is long and blunt, resembling that of a frog. Its back is sharp, its skin plaited, and jagged like a saw from the neck to the last joint of the tail. On its head it has something resembling a comb. The tongue resembles an earth-worm, and is of considerable length, from which oozes a very glutinous liquor, by means of which it catches flies and other insects which come within its reach. There is something very peculiar in the structure and form of the eyes. They are almost an inch in diameter. They are of a globulous figure, and

stand out considerably; and they move much, and in a contrary direction. Each eye has only one eyelid, with a small hole in the middle through which the sight of the eye appears no larger than a pin's head. The four feet are of equal length; those before are turned backward, and those behind are turned forward.

The chameleon has the remarkable power of changing colour. Its natural colour, when at rest and in the shade, is a bluish grey, which, when exposed to the sun, becomes a deeper grey; while those parts which have least light upon them are changed into spots of various colours. Sometimes, when handled, it discovers dark spots inclining to green. When placed on a black hat, it appears of the colour of violet; and sometimes, if wrapped up in linen, it looks white. This creature has the most remarkable power of enlarging and contracting itself; at one time appearing long, fat, and plump; and at another, short and emaciated, like a skeleton. The chameleon lays eggs, many at once, of an oval shape, and covered with a white skin, somewhat like parchment. This species is chiefly found in Africa and Asia; also in Spain, the isles of Bourbon, France, and Madagascar, in Fernando Po, and New South Wales. By the Levitical law it was pronounced unclean.



THE BITTERN.

THE BITTERN.

קפור, KEPHUD. *To pass swiftly.*

ISAIAH, XIV. 23.—“ *I will also make it a possession for the bittern, and pools of water ; and I will sweep it with the besom of destruction, saith the Lord of Hosts.*”

IN zoology, the bittern, or *botaurus*, is a sub-genus of the family of herons, or *ardeidæ*. Its provincial English names are, mire-drum, bull-of-the-bog, &c., names given because of the bellowing or drumming noise for which this bird is so famous.

This bird is about the size of a heron. The crown of its head is black ; and there is a black spot near each angle of the mouth. Its neck is covered with long feathers, which it can erect at pleasure. The legs, compared with those of the same family, rather short. The back is beautifully speckled with black, brown, and grey ; the body beneath whitish.

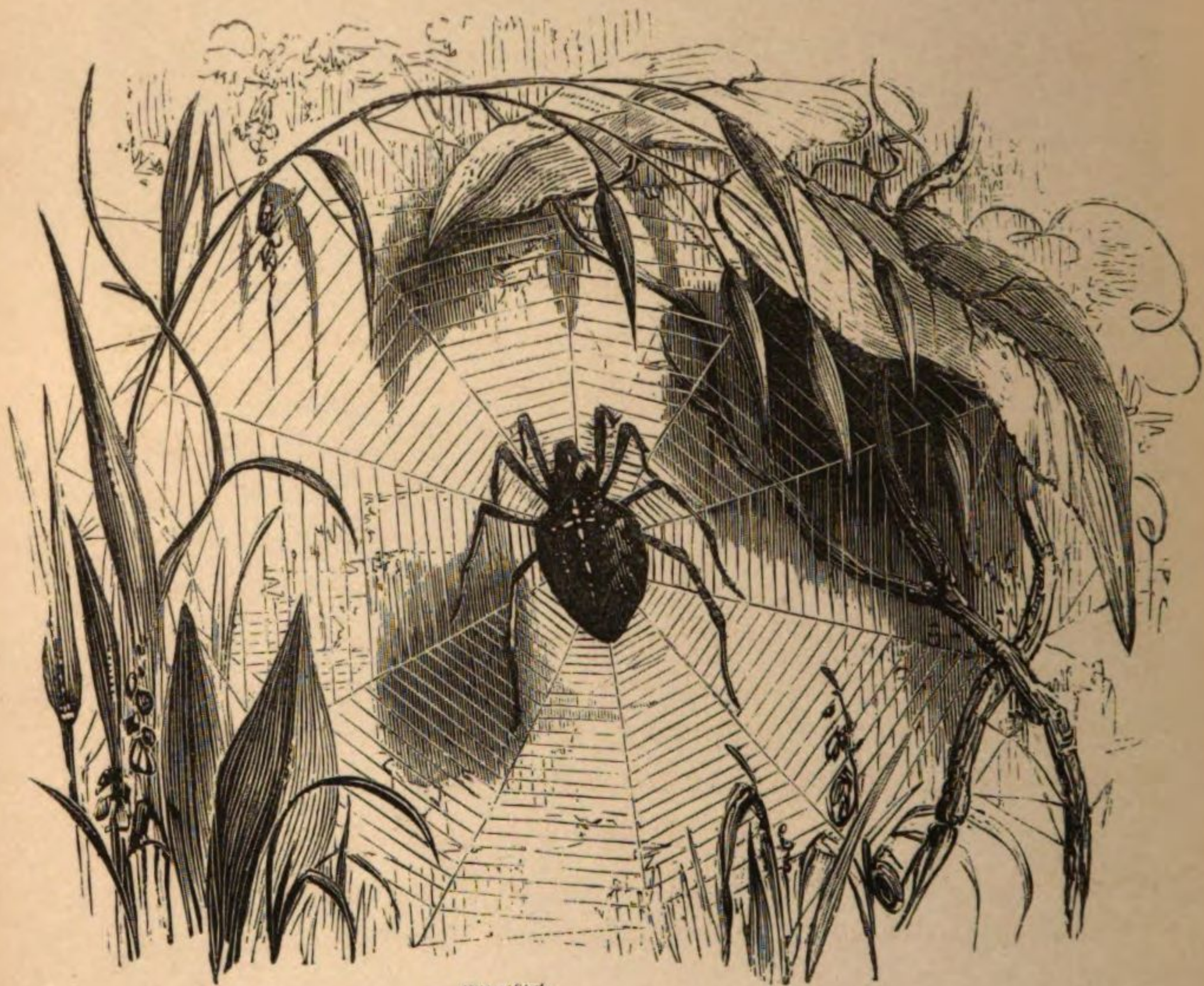
The food of the bittern chiefly consists of frogs and other aquatic animals. Its nest is rude, and generally formed of reeds, sticks, &c., placed on some dry clump in a reedy marsh, or well-clothed rushy moor, and containing four or five pale green eggs.

This bird prevails in Europe, and is an inhabitant of the fen countries. It skulks among the reeds and sedges. Its usual attitude is, having the neck and head erect, and the beak pointed directly upwards.

It will allow persons to approach it very closely without rising. When wounded and unable to escape, it has been known to strike boys and sportsmen. It generally flies about in the dusk of the evening, and it rises in a spiral ascent till it is out of sight. It makes a strange noise when it is among the reeds, and a very different sound at night when it rises upon the wing. Willoughby writes, "This, without doubt, is that bird our common people call the night-raven, and have such a dread of, imagining that its cry portends no less than their death, or the death of some of their near relations."

When maimed, like the heron, it is very apt to strike at the fowler's eye. During the reign of Henry VIII., it was held in great estimation at our tables. Its flesh resembles that of a hare, without the fishy taste of the heron.

Nineveh and Babylon became a possession for the bittern, when the site on which they were built became partly a fen, or pool of water. (Isaiah, xxi. 1; Zeph. ii. 14.) Of Nineveh it is said, "Both the cormorant and the bittern shall lodge in the upper lentils of it."



WHIMPER.

THE SPIDER.

SPIDER.

עכביש, ACCHABIS. *To hinder, or involve as in a net.*

שָׁמָם, SHAMAM. *The places, or to place with care.*

JOB, VIII. 14.—“ *Whose hope shall be cut off, and whose trust shall be a spider's web.*”

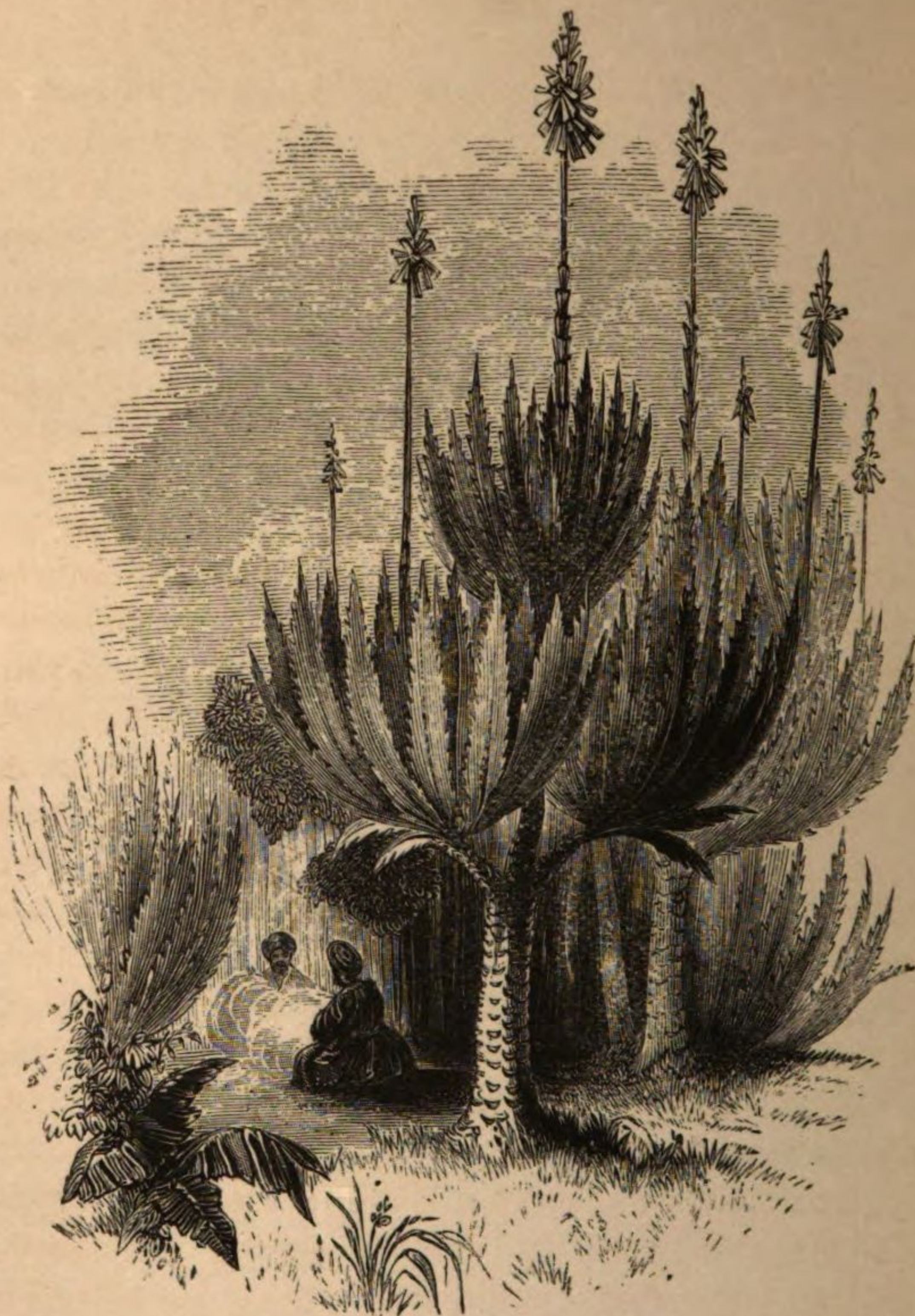
IN Job, viii. 14, and in Isaiah, lix. 5, the word *acchabis* is used, and in Prov. xxx. 28, the word *shamam*, as the names of the spider. Both names are very descriptive of its nature and habits. How striking the figurative use of the spider's web in the first passage ! It is employed to point out the weakness and insufficiency of the hypocrite's hope. The spider's web cannot preserve from the stormy rage of contending elements. Neither can the hope of the hypocrite preserve him from the storms of affliction, or the ravages of death, or the wrath of God. May we be clothed in the righteousness of Christ, then we shall sing triumphantly, “ We will not fear though the earth be removed, and though the mountains be cast into the midst of the sea.”

The *aranaea*, or spider, is a genus of *apterous* insects. The mouth is furnished with short horny jaws ; lip rounded at the apex ; feelers two, curved, jointed, and sharp at the tip. The eyes are eight, rarely six ; no antennæ ; its feet are eight ; and behind, it is fur-

nished with teats for spinning. They fix the ends of the threads by applying these nipples to any substance, and the thread lengthens in proportion as the animal recedes from the place. They are able, by means of their claws, to reascend the threads with great ease and rapidity, much in the same manner as sailors warp up a rope.

Spiders differ much in their appearance, size, and habits. Some are smooth, and others are covered with hair. It is said that in America there is a kind more than forty times larger than those of Britain. Many spiders are exceedingly venomous. Their bite is small, is not only dangerous, but in some cases mortal. Spiders lay from five to six hundred eggs. It is astonishing the instinctive ingenuity they employ for ensnaring flies, the objects of their prey. When a fly is caught in the web, the spider, which was before concealed in ambush, in a moment rushes from its hiding-place, darts upon it, firmly fixes its claws upon it, and then sucks out all its juice, which soon terminates its life.

May we not consider this voracious devouring insect as a figure of Satan, waiting to destroy unwary souls?



THE LIGN-ALOE.

LIGN-ALOE.

אֶהָלִים, AHALIM. *To fix as a tent.*

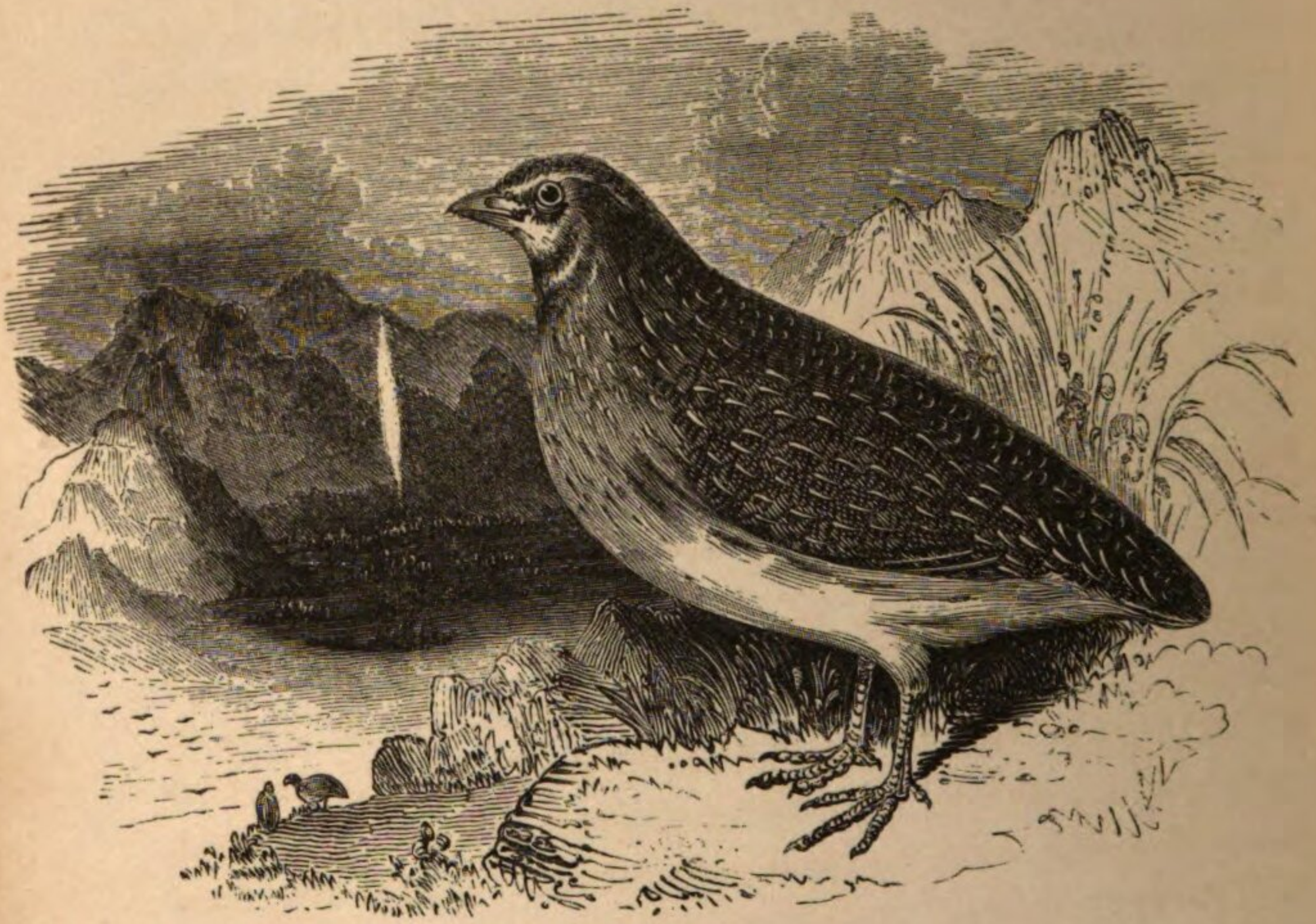
NUM. XXIV. 6.—“*As the valleys are they spread forth, as gardens by the river's side, as the trees of lign-aloes, which the Lord hath planted, and as cedars beside the waters.*”

THE lign-aloes belong to a genus, of which there are no less than twenty-three species. It is of the *hexandria-monogynia* class of plants, and having no calyx. The corolla is oblong, consisting of a single petal, and at the extremity divided into six petals. The tube is hunch-backed, and the limb straight. The fruit is a three-furrowed case, formed of three valves, and containing three cells. The seeds are numerous and of an angular shape.

At the top of the aloe-tree is a large bunch of leaves, which are thick and indented, broad at the bottom, but growing narrower toward the point, and about four feet in length. The blossoms are of a red colour, mingled with yellow, and double like a pink. From the blossom comes the fruit or pod already described. A traveller thus writes respecting the delightful fragrance of the flower of this lovely tree: “This morning, like many of the foregoing ones, was delicious. The sun rose gloriously out of the sea, and all the

air around was perfumed with the effluvia of the ALOE, as its rays sucked up the dew from the leaves."

This plant, or tree, is extremely bitter, and contains under the bark three sorts of wood. The first is black, solid, and weighty. The second is of a tawny colour, light and spongy in its texture, porous, and filled with a resin, very fragrant and agreeable. The third kind of wood which is the heart, has a strong aromatic odour, and in Eastern countries, is esteemed more precious even than gold. It is used for perfuming garments, beds, and apartments. It is also administered as a cordial in fainting and epileptic fits. Aloes were employed by the ancients in perfuming and embalming dead bodies. Hence we are told, in John, xix. 39, 40, that Nicodemus and others took myrrh and aloes, applied them to the lifeless body of Jesus, and wound it in linen cloth with the spices. The graces of the Holy Spirit, which were poured out on the humanity of Christ, are compared to aloes. (Psalm xlv. 8.) "All thy garments smell of myrrh, and aloes, and cassia, out of the ivory palaces."



THE QUAIL.

QUAIL.

שלל, SELAV. *Freedom.*

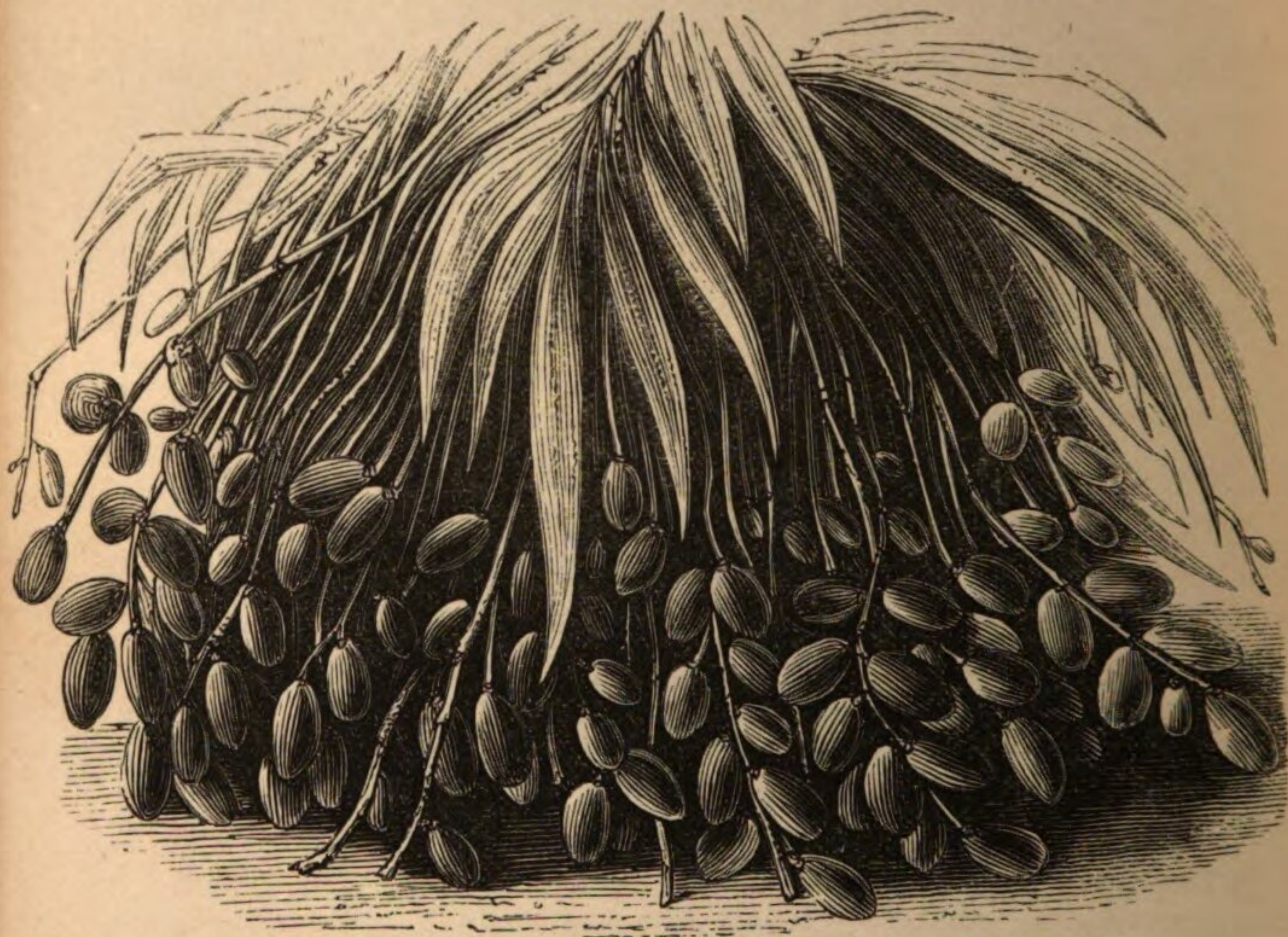
EXOD. XVI. 13.—“*And it came to pass, that at even the quails came up, and covered the camp; and in the morning the dew lay round about the host.*”

THE Hebrew name *selav*, given to the quail, is derived from a root which signifies to free, or loose from confinement. And the bird receives this name because it is remarkable for living at ease among the corn. The ancient writing of the Egyptians was by hieroglyphics, or letters consisting of pictures. Hence, among the Egyptians, a quail was the emblem of ease and tranquillity.

The common quail, or *perdix coturnix*, is a bird of the *gallinaceous* kind. As to its colour, the body is of a rusty grey, varied with black spots, and the throat is reddish, bounded by black. Its common measurement is seven inches and a half in length, and fourteen inches in extent of wing. In some instances they are perfectly white. It is about the size of a turtle-dove. Hasselquist, the traveller, says, “I have met with it in the wilderness of Palestine, near the shores of the Dead Sea and the Jordan, between Jordan and Jericho, and in the deserts of Arabia Petræa. If the food of the Israelites was a bird, this is certainly it; being so common in the places through which they passed.”

Quails are found nearly in every country of Europe, also in Asia, and are very common in China. The males are much given to fighting, and were anciently exhibited in regular combats both by the Greeks and Romans. The practice of quail-fighting is still cherished in China, Sumatra, and some districts of Italy. Quails are capable of receiving a considerable quantity of fat: their meat is delicate, pleasant to the taste, and therefore they are killed in great numbers for the table. They hatch four times a year, from fifteen to twenty in number. Sometimes they undertake extensive migrations in immense flocks, passing in autumn from the colder to the warmer regions. With wind and weather in their favour, they have been known to perform a flight of fifty leagues across the Black Sea in one night. An hundred thousand of them have been caught in Italy each day for a whole month, within the space of five miles.

On two occasions God fed his people on quails in the wilderness; first, within a few days after they had passed the Red Sea; (Exod. xvi. 3—13;) and the second time at *Kibroth-Hattaarah*, the *graves of lust*. (Num xi. 32.) Both of these happened in the spring, when the quails passed from Asia into Europe.



DATES.

DATES.

דַּבָּשׁ, DABASH. *Honey.*

2 CHRON. XXXI. 5.—“*And the children brought in abundance the first fruits of corn, wine, and oil, and honey, or dates.*”

THIS is the only passage where the fruit dates occurs in the Holy Scriptures ; and though the word literally signifies honey, judicious interpreters generally consider that the word should be rendered dates. The name is given to dates because of their remarkable sweetness, and therefore resemblance to honey. Besides, it is not correct to speak of the fruit of *honey*. The fruit spoken of must be that of some tree, the fruit of which most resembles honey for richness and sweetness. In this respect, there is no fruit so worthy of this name as that of the palm-tree.

The dates grow in clusters below the leaves of the palm-tree. This fruit is of a sweet and agreeable taste. It is produced by the palm-tree in great abundance, and for a great series of years. The tree is in its greatest vigour about thirty years after it is planted ; and it continues in full vigour seventy years longer, bearing all this while every year about three or four hundred pounds' weight of dates. This furnishes a striking reason why the inspired Psalmist compares the believer fruitful in grace to the palm-tree.

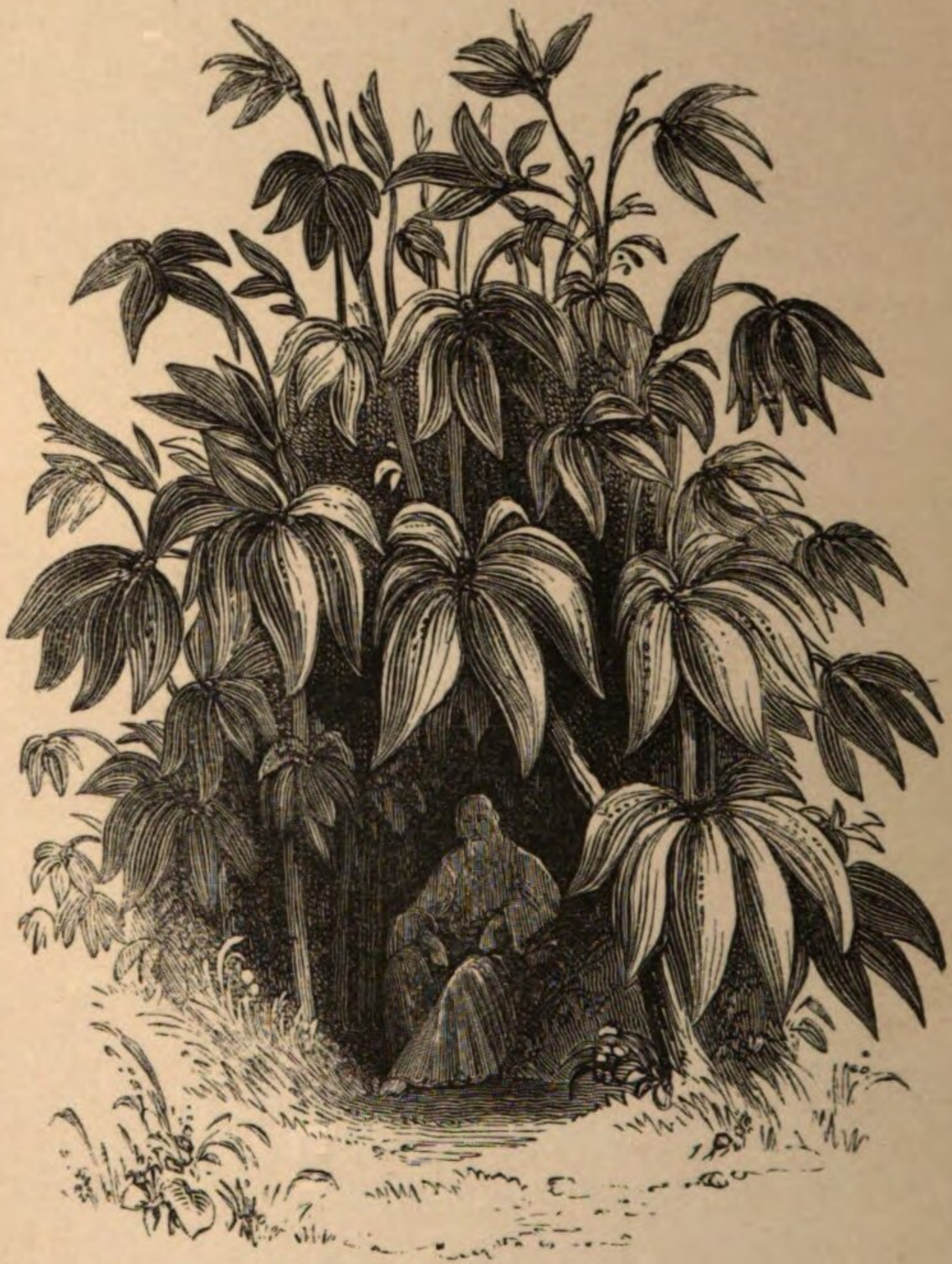
(Psalm xcii. 12.) "The righteous shall flourish like the palm-tree, he shall grow like the cedar in Lebanon."

The date is shaped something like an acorn. It is composed of a thin, light and glossy membrane, somewhat shining and yellowish, which contains a fine, soft, and pulpy fruit, firm and sweet, and somewhat vinous to the taste, esculent and wholesome. There is, enclosed within, a solid, tough, and hard kernel, of a pale grey colour on the outside, and finely marbled within, like the nutmeg.

For medicinal purposes dates are to be chosen large, full, fresh, yellow on the surface, soft and tender, and not too much wrinkled. They are produced in many parts of Europe, but never ripen perfectly there. In Tunis they are found in great perfection; they are also excellent in Egypt, and in many parts of the East. Those of Spain and France look well, but are never perfectly ripe, and are very subject to decay.

They are preserved in three different ways. Some are pressed dry; others pressed more moderately, and again moistened with their own juice; and others not pressed at all, but moistened with the juice of other dates. Dates have always been esteemed moderately strengthening and astringent.

The fruit of the palm-tree may be considered figurative of the holy and useful actions which adorn the lives of good men.



JONAH'S GOURD.

JONAH'S GOURD.

קִיקִיּוֹן, KIKIUN. *Probably, Starting out.*

JONAH, IV. 6.—“*And the Lord God prepared a gourd, and made it to come up over Jonah, that it might be a shadow over his head, and deliver him from his grief. So Jonah was exceeding glad because of the gourd.*”

JEROME, a celebrated father in the Christian church, who flourished in the fourth century, and was born in the year 340, describes the gourd as a kind of shrub, having broad leaves like the vine, affording a very thick shade, and supported by its own stem. It grows, he says, very commonly in Palestine, and chiefly in sandy places; and if one throws the seed upon the ground, it grows wonderfully fast, and within a few days after the plant appears, one sees a little tree. Another learned writer describes the fruit as growing in a triangular form, with three sharp-pointed edges, which opening when it comes to maturity, the seed starts or leaps out with violence. It is not at all unlikely that this last-mentioned circumstance may have given to the plant the Hebrew name *kikiun*, which signifies to *start*, or *leap*.

There is, however, great doubt what particular plant the *gourd* really was. The contest rose so high betwixt Jerome and Augustine, about the identity of

this plant, that historians confidently affirm, these two venerable fathers so far forgot themselves, that from hot words they actually proceeded to hard blows, certainly a method by which the point of difference could never be reasonably or satisfactorily settled. What is equally surprising, it is said, that Augustine accused Jerome of heresy at Rome, because of the opinion he entertained respecting Jonah's gourd. What renders this conduct truly ridiculous and foolish, neither of these fathers had ever seen a gourd, and yet condemned each other about a matter which was of no importance.

Celsus considers that the gourd is the *kiki* of the Egyptians. Dioscorides says, it is of rapid growth, and bears a berry from which an oil is expressed. This plant grows spontaneously in Greece without culture. But the Egyptians sow it upon the banks of the canals and of the Nile. It rises with a strong herbaceous stalk to the height of ten or twelve feet, and is furnished with large shady leaves, not unlike those of the palm-tree.

In modern botany, the *melopepo*, or erect gourd, rises with an erect, or strong stalk, several feet high, rarely sending forth side runners, but bushy upward. It is adorned with large lobated leaves, and the flowers are succeeded by depressed knotty fruit, both white and yellow, and of a moderate size.

Jonah's gourd withered in a night! How short-lived his protection! May it be our happiness to en-



THE POMEGRANATE.

joy the protecting shade of Jesus, the tree of life, whose fruit never decays, and whose leaves are for the healing of the nations !

POMEGRANATE.

רִמּוֹן, RIMMON. *Projecting, or darting.*

NUM. XIII. 23.—“*And they came unto the brook of Eshcol, and cut down from thence a branch with one cluster of grapes, and they bear it between two upon a staff; and they brought of the pomegranates and of the figs.*”

THE pomegranate seems to receive the Hebrew name *rimmon*, from the strong darting forth of light from the fruit, or from the star-like flower, with six leaves or rays at the top of the fruit.

The pomegranate-tree, or *punica*, is a genus of the *monogynia* order, belonging to the *icosandria* order of plants. There are two species, the *granatum* and *nana*.

The *granatum*, or common pomegranate, rises with a tree-stem branching numerously all the way from the bottom, growing eighteen or twenty feet high, and with spear-shaped, narrow, opposite leaves. The branches are terminated by beautiful, large, red flowers, most elegantly formed, and resembling a rose. These

flowers are so bright, that a palisade of pomegranate-trees must appear as if all on flame in the flowering season. The flowers are succeeded by a large roundish fruit about the size of an orange, having a hard rind filled with soft pulp and numerous seeds. Of this species there is a variety with double flowers, remarkably beautiful, and also one with striped flowers.

The fruit of the pomegranate is delicious, wholesome, allays heat, and quenches thirst. It was held in great estimation by the Israelites. Moses, in describing to them before his death the excellence of the promised land into which they were soon to enter, makes particular mention of the fruit of the pomegranate-tree. (Deut. viii. 8.) "A land of wheat, and barley, and vines, and fig-trees, and pomegranates; a land of oil-olive and honey." The high-priest's robe was adorned at the bottom with ornaments representing this lovely fruit. (Exod. xxviii. 33.) The stately columns of Solomon's temple were also beautified by similar ornaments. (Kings, vii. 18.) Christ likens the loveliness of the church to the pomegranate. (Song iv. 3.) "Thy lips are like a thread of scarlet, and thy speech is comely; thy temples are like a piece of pomegranate within thy locks." The graces of the saints, and particularly their humility are also likened to pomegranates. (Song iv. 13; vi. 11; and vii. 12.)



'THE ROSE OF SHARON.

ROSE OF SHARON.

חִבְצֵלֶת, HABETZELETH. *To hide and shade.*

SONG II. 1.—“*I am the rose of Sharon, and the lily of the valleys.*”

THE *habetzeleth*, which is rendered *rose of Sharon*, only occurs in two places in Scripture, namely, Song ii. 1, and Isaiah, xxxv. 1. In the latter passage, our translators render the Hebrew name simply by the word *rose*; but with equal propriety they might have rendered it as they have done in Song ii. 1, and then the passage would have read thus; “The desert shall rejoice, and blossom as the rose of Sharon.”

The Hebrew name *habetzeleth* is compounded of two words, and each of them signifies to hide, shade, or conceal. This meaning is applicable to a rose not yet blown, that is, a *rose-bud* overshadowed by its *calyx*. In Song ii. 1, the church says of herself, “I am the *rose of Sharon*.” We must consider this description of herself, not as a commendation, but as an expression of modesty and humility. There is every probability that the rose mentioned was the wild rose growing in the rich, beautiful, and romantic vales of Sharon. The name Sharon was given to several very delightful and fruitful spots in Canaan. One lay between Cesarea and Joppa, on the west of the promised land. (Acts, ix. 35.) A second lay between Tabor and the sea of

Tiberias ; and a third on the east of Jordan. (1 Chron. v. 16.) Sharon was distinguished for two things, its excellent roses, and pasture for flocks.

We are to consider the figure employed by the church as expressive of humility. In the preceding chapter, the bridegroom had been describing her excellencies in the liveliest strains. In reply, she does not compare herself to the full-brown rose, but only to a rose-bud, the beauties of which are concealed under the *calyx* ; at the same time, representing her beauty as nothing extraordinary, but only as the bud of a common rose growing in the fields. This interpretation gives peculiar force to the passage.

The rose may be pronounced the loveliest of flowers, and surpassed by none in elegance, richness, and fragrance. Poets of all lands have sung of its excellence. There are fifty-three kinds of roses ; but of all the varieties, the rose of Damascus, and the rose of Sharon, are the finest. There is a common opinion that the rose of Sharon has this peculiarity, having no thorns, "a rose without a thorn." It may be the case ; but of the fact I am not aware. One thing is certain, Jesus is the true Rose of Sharon, a rose without a thorn.



THE SYRIAN OX

SYRIAN OX.

בקר, BACRE. *To seek, or search.*

ISAIAH, I. 3.—“*The ox knoweth his owner, and the ass his master's crib.*”

At first sight we may not be able to perceive the resemblance betwixt the ox and the name given to it. Why is the ox called by a name which signifies to search or seek? This question will be answered in the language of Isodorus, and quoted by the learned Bochart. He says, “The love of these animals,” namely, oxen, bulls, and cows, “for their companions is very remarkable, for those that have been yoke-fellows at the plough together, *search after each other*, (hence the name *bacre*, to search,) and by frequent lowing testify their affection.” Parkhurst very properly adds, “It is well known to persons acquainted with the nature of these animals, that if they happen to buy an odd ox without his yoke-fellow, he will not associate for a considerable time with other oxen, but *pine* for his former companion.”

We consider the ox in our country as the emasculated male of horned cattle. It is ascertained, that the Jews in ancient times never mutilated their bulls, but allowed them to remain in their natural entire state. As far as I can learn, the *bos-bubulus*, or *buffalo*, must be the Syrian ox. In general appearance, it

very much resembles the common ox. This animal has great indications of strength in the thickness of its trunk, the largeness of its limbs, and the prominence of its muscles. The fulness of its head, the small eyes deeply seated in their round sockets, and the tuft of frizzled hair on the forehead, give to it a wild, stern, dark, and sullen aspect. It is ordinarily of a blackish colour.

The buffalo is originally a native of the warmer parts of Africa and India, while in Europe it is only one of its naturalized quadrupeds. As early as the seventh century, it was introduced into Italy, and is still reared in the Pontine Marshes. They grow so large in Abyssinia, that they are called elephant-bulls. Two domestic buffalos are able to draw as much as four strong horses. They are much cultivated in Egypt, where they yield abundance of excellent milk.

Oxen were in the greatest estimation by the ancient Jews, and in the code of Moses we have a very considerable number of distinct laws which had a particular respect to oxen. Besides, oxen formed the principal part of the Jewish sacrifices, and twelve brazen oxen, as large as life, supported Solomon's brazen sea, which occupied in the temple a place so conspicuous. These figuratively represented the twelve apostles of the Lamb, who exhibited Jesus as the only mean by which the guilt and pollution of sin can be washed away.



REEDS.

REEDS.

קנה, KANEH. *To hold or contain.*

אגמון, AGMON. *To flow together, as water.*

JOB. XL. 21.—“*He lieth under the shady trees, in the covert of the reed and fens.*”

BOTH *kaneh* and *agmon* are used as the names of the *reed*. The one signifies something hollow, and capable of containing water like a pipe. Our word *cane* is evidently of Hebrew origin, being derived from the Hebrew word *kaneh*. And *agmon*, the other Hebrew name of *reed*, which signifies “*flowing together, as water*,” is very descriptive of the *reeds*, which grow where there is abundance of water to give them the nourishment which their nature requires. Hence we have that beautiful and poetical prophecy respecting the future prosperity of the church of Christ: (Isaiah, xxxv. 7:) “And the parched ground shall become a pool, and the thirsty land springs of water; in the habitation of dragons where each lay, shall be grass, with reeds and rushes.”

In botany, the *arundo*, or *reed*, is a genus of the *digynia* order, belonging to the *triandria* class of plants, and ranking under the fourth order, *gramina*. The calyx consists of two valves, and the floscules are thick and downy. There are fourteen species. The

most remarkable are the four following:—first, the *arundo bambos*, or the bamboo, a native of the East Indies and some parts of America, where it grows to the surprising height of sixty feet. The branches of this magnificent herb are employed for a great variety of purposes. The second is the *arundo donax*, the native of warm climates. The stalks are imported from Spain and Portugal, and are used for the purposes of weaving and fishing-tackle. The third is the *arundo orientalis*, which the Turks use for making pens. And the fourth is the *arundo phragmitis*, or the common marsh-reed, which grows by the sides of our rivers, and in standing waters.

In Egypt there are reeds from which the inhabitants make paper; and in the West Indies and other parts of the earth, there is the famous reed, or cane, from which sugar is so abundantly extracted.

Weak saints are compared to *bruised reeds*, which Christ will not break. (Isaiah, xli. 3.) Egypt, in which Israel foolishly trusted, is called a *broken reed*, because of their inability to give help. (Ezekiel, xxix. 6; Isaiah, xxxvi. 6) Jesus, teach us to trust in thee, the Rock of Ages!



SYCAMORE FIGS.

SYCAMORE-FIGS.

שקמות, SHIKMOT. *To rise.*תנין, TEANIM. *Root of the word, to grieve.*

ISAIAH, XXXVIII. 21.—“*For Isaiah had said, Let them take a lump of figs, and lay it for a plaster upon the boil, and he shall recover.*”

THE sycamore is a species of trees called the *Egyptian fig-tree*. The Greek name is striking, being composed of two words which signify both the *fig-tree* and the *mulberry-tree*. It not only resembles these two trees, but partakes of the nature of both. It resembles the mulberry-tree in its leaves, and the fig-tree in its fruit, which is like the fig both in its shape and size. It is very singular that this fruit neither grows in clusters nor at the end of branches, but sticking to the trunk of the tree. The taste is pretty much like that of a wild-fig.

Mr. Hasselquist gives the following account of the sycamore-tree of Scripture: “This is a huge tree, the stem being often fifty feet in circumference. The fruit is pierced in a remarkable way by an insect. It makes several furrows in the inside of the fruit, but never touches the stigmata, though it frequently eats the germen. This tree is very common in the fields and plains of Lower Egypt. It buds in the end of March, and the fruit ripens in the beginning of June.”

It is said that this tree bears its fruit different from

all other trees. As we have already noticed, the fruit grows upon the trunk itself. The tree is an evergreen, and bears fruit at different periods of the year, without observing certain seasons. Though the fruit resembles real figs, it is very inferior to them in taste. There is something disgusting in its sweetness. The colour is yellow. In the inside it considerably resembles the common fig. In Egypt, the common people very generally live upon this fruit. They are very contented indeed, if they have a piece of bread, a couple of sycamore figs, and a pitcher of water. How different their habit of simple living from that of the peasants and artizans of England !

It is positively stated by naturalists both of ancient and modern days, that the fruit must be cut, or scratched, either with the nail of the finger, or with iron, or it will not ripen. Four days after this process it will become ripe. It is also said, that when the fruit has arrived at the size of an inch diameter, the inhabitants pare off a part at the centre point, without which, it would not reach maturity.



THE SYRIAN GREYHOUND.

SYRIAN GREYHOUND.

זִרְזִיר, ZIRZIR. *Straight, slender.*

PROV. XXX. 29, 30, 31.—“ *There be three things which go well, yea, four are comely in going : a lion, which is strongest among beasts, and turneth not away for any ; a greyhound ; an he-goat also ; and a king.*”

THIS is the only passage in Scripture where the word *zirzir*, or greyhound occurs. Like the great generality of Hebrew Scripture names, *zirzir*, signifying *straight* and *slender*, is remarkably descriptive of the animal to which it is applied.

It is astonishing the variety which exists in *genus canis* ; no less a number than twenty-three species. But of all the varieties in point of beauty, symmetry, and majesty, there is none to be compared with the *greyhound*. Even the Spirit of Inspiration introduces this noble animal into the sacred page, as an interesting specimen of one of those animals of the lower and irrational tribes, on which the Creator has conferred peculiar marks of majesty and beauty.

The common greyhound is well known from its use in the chase, and it is remarkable how much purer and more distinct the breed of this species has been preserved than any of the rest. Compare the appearance of the greyhound, given by Solomon in the passage at the head of this article, at the distance of two

thousand eight hundred and thirty-four years, with the greyhound now at this remote period, whether in Britain, or Italy, or Syria, and we perceive that it retains to the present time all the proportion and beauty which it exhibited in ancient days. This observation is strengthened by a remark of Colonel H. Smith; respecting greyhounds he says, "A race, of which there exist representations," namely, in Egypt, "above three thousand years old."

We learn from this same zoologist and writer, that the Arabian, or Beduin greyhound is a large and fierce species, greatly valued and used by the wandering tribes for coursing antelopes, and for watching their tents and herds. But the race of Arabia Petræa, or of Syria, is much smaller, with a long hairy tail in the form of a brush, and with erect, pointed ears. The annexed representation is taken from high authority. What is striking, the whole animal much resembles the representations which have been preserved in Egypt three thousand years. There is little doubt that this is the beautiful species with which the ancient Hebrews were familiar.



THE APPLE-TREE, OR CITRON.

THE APPLE-TREE, OR CITRON.

תפוח, TAPHUAH. *To breathe.*

PROV. XXV. 11. — “*A word fitly spoken is like apples of gold in pictures of silver.*”

No apples, according to our acceptation of the term, grew in Palestine. It is therefore somewhat surprising that our translators should have used the words *apples* and *apple-tree*. There is no tree which so exactly corresponds with the account given in Scripture as the citron-tree, and the lovely, golden-coloured fragrant fruit for which it is distinguished. Here we may allude to those passages of the Sacred Writings where the word *taphuim*, translated apples, occurs, and there we shall see exactly that the description answers or applies to the fruit of the citron-tree.

In Prov. xxv. 11, words fitly spoken are compared to *apples of gold* in pictures or baskets of silver. The first fruits were presented by the Jews in baskets of silver in the temple. The golden colour of the citron-fruit leads us to believe that this fruit constituted the *apples* presented in silver baskets, and introduced so poetically into the figure of the inspired writer. The fruit of the citron, as well as the tree, corresponds with the account given in Song ii. 3, both the tree and fruit being remarkable for their fragrance: “As the apple,” or citron, “tree among the trees of the wood,

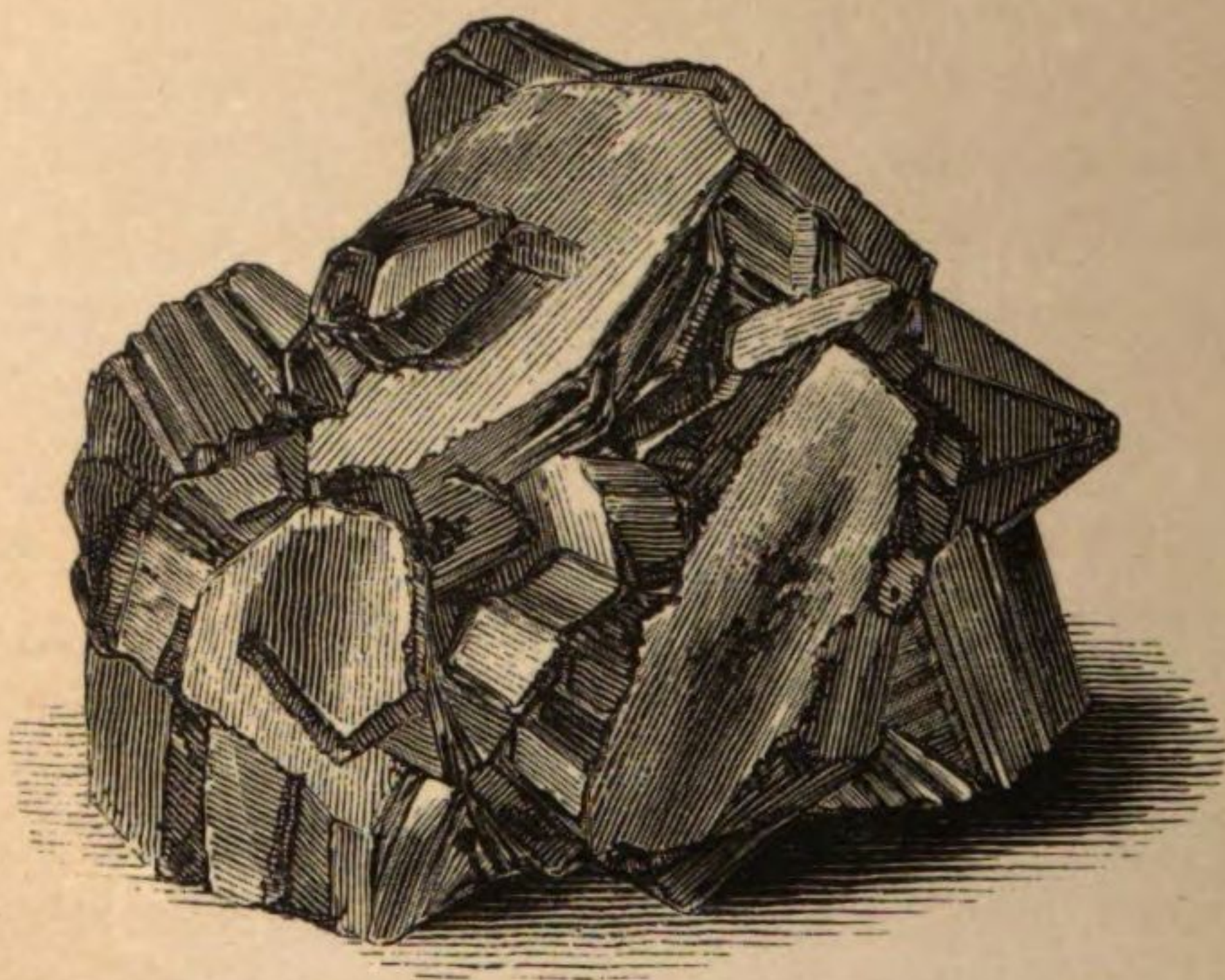
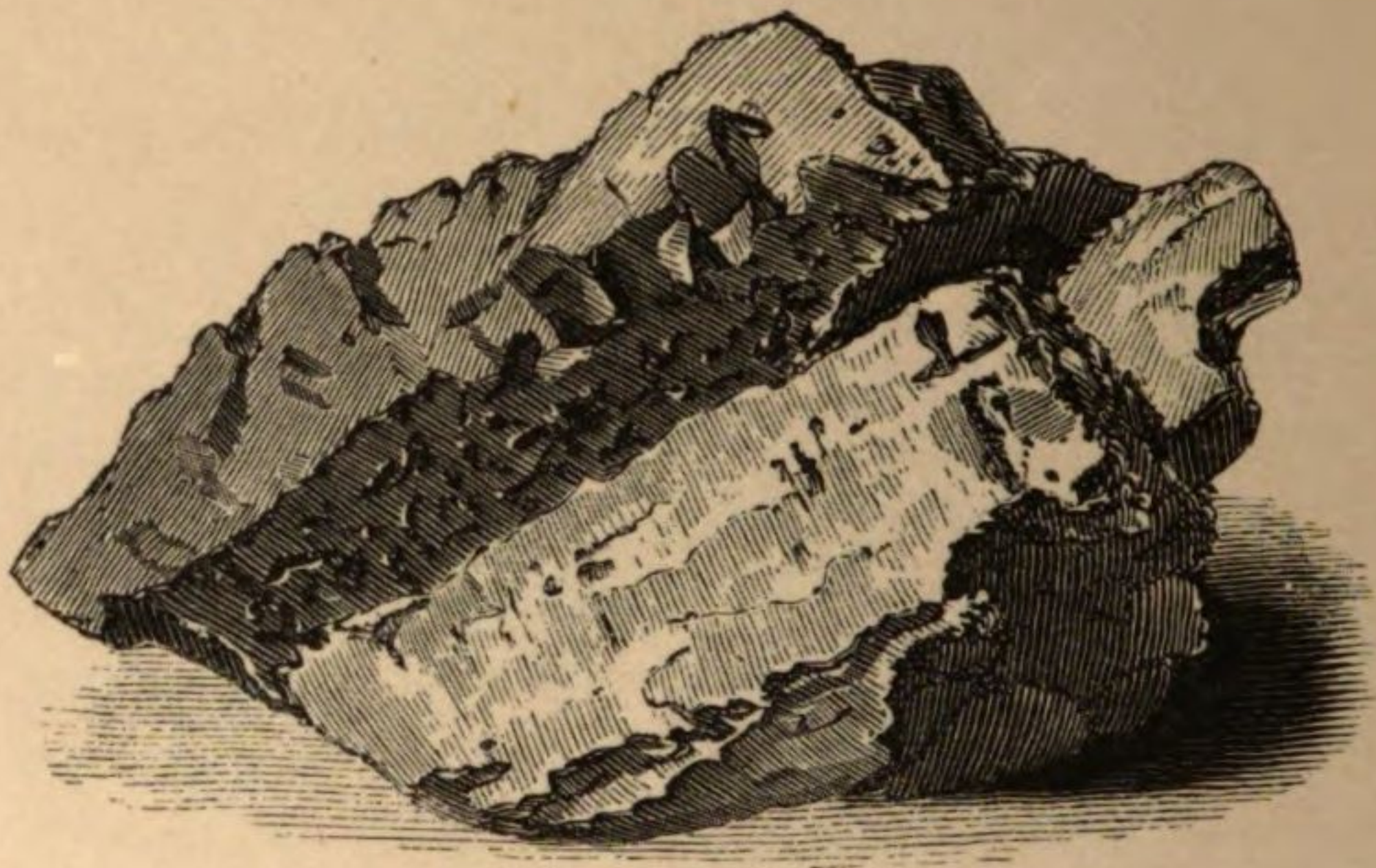
so is my beloved among the sons. I sat down under his shadow with great delight, and his fruit was sweet to my taste." In writings of great antiquity mention is made of the citron as known to the Jews, and being abundant in Palestine. Josephus records, that at the feast of tabernacles the Jews pelted King Alexander Janneus with citrons, which they had then in their hands; for the law, he says, required, that during that feast every one should have the branches of the *citron* and of the palm-tree. This not only shows that the citron-tree was well-known before the days of Alexander Janneus, but that Josephus, and Jewish writers generally, understood the citron-tree to be signified by the "boughs of the goodly tree," (in Levit. xxiii. 40,) used at the feast of tabernacles, "when the Jews rejoiced before the Lord their God seven days."

Citron-trees are very noble, of magnificent size, the leaves are particularly beautiful, and even continuing in constant succession, of an exquisite fragrance, and affording a most delightful shade. With the greatest propriety the breath of the spouse is compared to the fragrance of the fruit.

"More sweet the fragrance which thy breath exhales,
Than citron-groves refreshed by morning gales."*

* Mrs. Frances' Translation.

1870



TIN AND ITS ORE.

TIN AND ITS ORE.

בְּרִיל, BEDIL. *To divide, or separate.*

ISAIAH, I. 25.—“*And I will turn my hand upon thee, and purely purge away thy dross, and take away all thy tin.*”

THE name *bedil*, given to *tin* in Scripture, gives a most striking account of one of its *chemical* properties, which it seems must have been known to the ancients as far back as the days of Isaiah and Ezekiel, being above two thousand six hundred years ago. The judicious remarks of the learned Parkhurst places this in a clear and interesting light. He observes, that “Moses, in Num. xxxi. 22, enumerates all the six species of metals, gold, silver, brass, iron, tin, and lead. Silver, of all the metals, suffers most by an admixture of *tin*, a very small quantity serving to make that metal as brittle as glass. The very vapour of tin has the same effect as the metal itself on silver, gold, and copper, rendering them brittle.” This *chemical* fact enables us to see the force and accuracy of the figurative denunciation of Jehovah, by the prophet Isaiah. In the twenty-second verse of the first chapter of his prophecy, he compares the Jewish people to silver: “Thy *silver* is become dross.” In the twenty-fifth verse God says, by the prophet, “I will turn my hand upon thee, and purge away thy dross, and remove all thy *tin* :” in the

original, "I will take away all thy *particles of tin*," (*bedilik.*) Now, by comparing the verses together, the declaration of God appears to signify, "that God, by a process of his wise and righteous judgments, would purify among the Jews those who were capable of purification, as well as destroy the reprobate and incorrigible."

TIN is a metal which was well known to the ancients. The Phœnicians procured it from Spain and Britain, with which nations they carried on a very extensive and lucrative commerce. This metal is found in great and almost inexhaustible abundance in the southern parts of Britain, and more especially in Cornwall and Devonshire. This remark as to the abundance is justified by the fact, that from the days of the ancient Phœnicians the mines of Cornwall have been in uninterrupted operation. Tin, in itself, is the lightest of all metals; while, in its *ore*, it is the heaviest. It is seldom, if ever, found pure, and the appearances of its ore are singularly and beautifully different. The finest and richest specimens of ore are styled *tin-grains*, or *corns of tin*, being crystals of a black colour of different sizes. Tin is also found in a heavy black stone, sometimes in a more porous yellow-coloured ore. It is often found combined with silver. It is so malleable, as to be reduced to the two thousandth part of an inch. The Jews chiefly obtained their tin from Tarshish. (Ezek. xxvii. 12.) Bochart supposes this Tarshish was *Tartessus* in Spain.



CINNAMON.

CINNAMON.

קנמון, KINNEMON. *Strong perfume.*

EXOD. XXX. 23.—“Take thou also unto thee principal spices, of pure myrrh five hundred shekels, and of sweet cinnamon half so much.”

THE reason why the Hebrew name *kinnemon* is given to this substance is evident, namely, the delightful odours which arise from it. The materials from which the sacred oil in the temple was extracted were the most precious, and the fragrance with which it filled the tabernacle and temple was the most exquisite and refreshing. And it appears from the passage quoted above, that the cinnamon was a part of the materials.

Cinnamon is a most agreeable aromatic spice, consisting of the inner bark of the *laurus cinnamomum*, or cinnamon-tree. When newly stripped from the tree, it has little taste or colour, but when dried it assumes a brown colour, and both its smell and taste are delightful.

The cinnamon-tree is a species of *laurus*, or bay-tree, which is a genus of the *monogynia* order. This tree is a native of the island of Ceylon, and is called by the natives *penni corundi*, or *honey cinnamon*. It is doubtful whether this tree ever grew upon the Indian continent. It is no longer found there. The root is

large, dividing itself into several ramifications. The wood of the root is hard, white and having no smell. This tree resembles the willow, the form of which is peculiarly handsome. It grows to the height of twenty or thirty feet. The body and branches of the tree are covered with a bark, which at first is green, but afterwards red. The leaf is longer and narrower than the common bay-tree. At first it is of a flame-colour, but in course of time it changes into a deep green. The flowers are small and white, and grow in large bunches at the extremity of the branches. They have a most agreeable smell, something like that of the lily-of-the-valley. The fruit is shaped like an acorn, but not so large. Some say that a substance is extracted from the fruit resembling tallow, and from which candles are made. There is no part of the tree so valuable as the bark.

Saints and their graces are likened to cinnamon. Like this substance, they are precious and pleasant. (Song iv. 13, 14.) "Thy plants are calamus and cinnamon, with all trees of frankincense."



PINE-TREES

PINE-TREE.

שמן, SHEMEN. *Gummy plants.*תדהר, TIDAHER. *Elasticity.*

NEHEMIAH, VIII. 15.—“*Fetch olive-branches, pine-branches, myrtle-branches, and branches of thick trees to make booths.*”

WE may briefly refer to the allusions made in Scripture to the pine-tree. After the Jews had returned from Chaldea, and remained some time settled in Palestine, the land of their fathers, they began to observe in regular order their religious feasts, according to the Levitical law. One of these was the feast of tabernacles. Ezra, the scribe, found written in the law which the Lord had commanded Moses, that the children of Israel should dwell in booths in the feast of the seventh month. Therefore, the following proclamation was made throughout the land: “Go forth unto the mount, and fetch olive-branches, and pine-branches, &c., to make booths, as it is written. So the people went forth, and brought them, and made themselves booths.” (Nehem. viii. 13—16.)

In Isaiah, xli. 19, we find the pine-tree most beautifully introduced in a poetical, prophetic, and animating description of the purity and prosperity of the gospel church. “I will plant in the wilderness the cedar, the shittah-tree, and the myrtle, and the oil-

tree ; and I will set in the desert the fir-tree, and the pine, and the box together." We have a similar description of the prosperity of the New Testament church in the sixtieth chapter of the same prophecy. The various nations of the earth are represented as furnishing their various peculiar productions for promoting the interest and advancing the glory of the church. Then, it is said, (verse thirteenth,) "The glory of Lebanon shall come unto thee, the fir-tree, the pine-tree, and the box together, to beautify the place of my sanctuary."

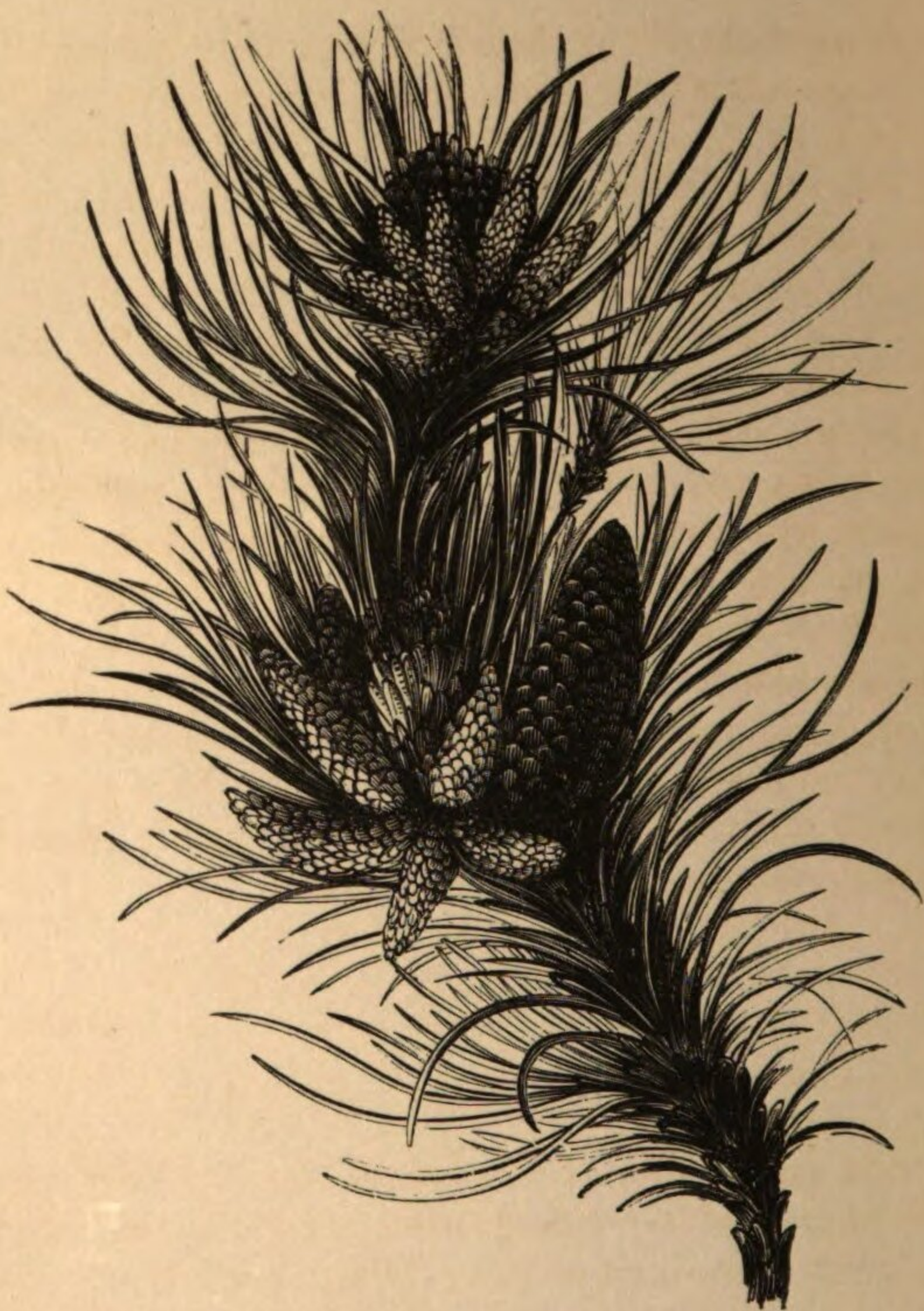
PINUS ORIENTALIS.

THERE are many trees classed under the botanical name *pinus*, such as the fir, the cedar, the larch, &c. The name *pine* is probably of a Celtic origin, and is variously modified in all dialects of that ancient language. *Pin*, or *pen*, signifies a mountain or rock ; whence we have the Apennines ; the Pennine Alps, &c. The Gallic *pinwidden*, like the German *pyn-baum*, means a mountain tree. No description of the pine can be more appropriate than this.

The leaves of the oriental pine are solitary and quadrangular. The cones are cylindrical, shaped somewhat like an egg, pendulous ; and their scales in some measure rhomboid, that is, having four sides equal.



PINUS ORIENTALIS.



PINUS LARIX, OR LARICUS.

These were gathered by Tournefort on lofty mountains above the convent of St. John, twenty-five miles south-east of Trebisonde, a city of Asiatic Turkey, on the Black Sea, in the country of the Colchians; and the city celebrated for giving an hospitable reception to the ten thousand Greeks after their memorable retreat. The modern Greeks know this tree by the name of *ελάτη*, *elaté*. It seems to be the only species of the spruce tribe found by Tournefort in the Levant. Aubriet made a sketch of an original specimen bearing two cones, and from which a very correct plate is engraved by Mr. Lambert. The leaves of Tournefort's plant are very short, being hardly half an inch long, and somewhat incurved. The cones are two inches long, stalked, quite pendulous, ovate, and tapering, with scales rounded, entire, and even. This tree is also found in China, and differing very little indeed from the species found in the Levant.

PINUS LARIX, OR LARICUS.

It is the peculiarity of the *pinus laricus* that the leaves are numerously tufted from each sheath. The *pinus larix* is the common, or white larch-tree. Its leaves are elegantly tufted and deciduous, that is, falling off, not perennial, nor lasting beyond the year. The cones are ovate, oblong, and the margins, or edges

of the scales reflexed and jagged. This beautiful tree is a native of the Alps of Switzerland, Italy, Germany, and Siberia. It has been long cultivated, and very extensively, and also very profitably, in this country. Before the leaves fully expand, it flowers in the months of March and April. The flowers are of a glowing crimson colour, very abundant, and giving to the tree remarkable elegance. The larch is a tree of straight and lofty growth, of large bulk, with wide-spreading branches, whose extremities droop in the most elegant manner. In a wild state its form is less regular, but more picturesque. The buds are perennial and cup-shaped, and continue at least four or five years. From similar buds spring separately, on the same branch, male and female flowers.

The most handsome and lofty, and, we may add, the largest specimens of the *pinus laricus* are to be seen at Dunkeld, Perthshire, in the pleasure-grounds of the Duke of Atholl. There are *two* which I saw in 1842: they are the *first* ever imported into this country, and were brought from Italy, by the late Duke, in two flower-pots. For some time they were cultivated in a hot-house, but were afterwards planted near the ancient cathedral, where they now stand as fresh as ever, the ancestors of hundreds of thousands which have added so much beauty and wealth to the mountainous ducal domains.



THE SEA-SWALLOW.

SEA-SWALLOW.

HIRUNDO-PELASIGUS. *Swallow of the sea.*

PROV. XXVI. 2.—“*As the swallow by flying, so the curse causeless shall not come.*”

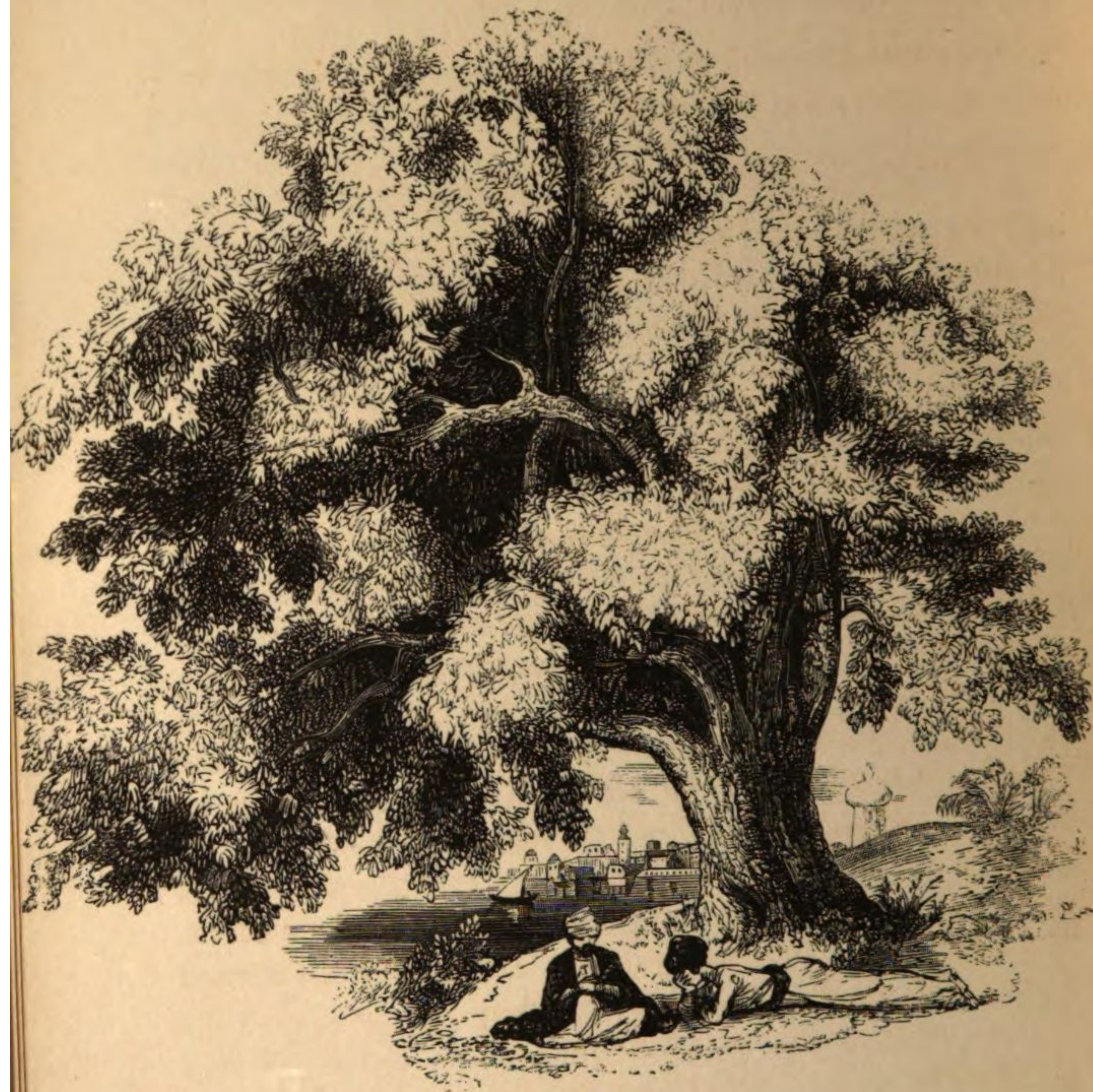
IN this passage there is evidently an allusion to the swallow as a migratory bird, or, as it is called in ordinary speech, “a bird of passage.” At a particular period of the year swallows come to certain countries, and then leave them for other regions. They visit our country at the beginning of summer, and they leave it when the warmth of summer is beginning to be displaced by the cold of winter. We see in both these cases a reason for their migratory movements. As their flight is not without a *cause*, so the curse which comes upon the wicked is not without a *cause*; namely, their own sins.

As we have already stated in another article on the swallow, it is a genus belonging to the order of *passeres*. The general character is, the bill is short, large at the base, small at the point, a little bent, the nostrils concealed, the tongue large and short, in the greater number the tail forked, the wings long, the feet short, and having four toes, one behind and three before.

The characteristic marks of the sea-swallow are as follows:—the bill is straight, slender, and pointed;

the wings are of a very considerable length ; the tail is forked ; the toes are four in number, as in other swallows, three before and one behind, and there is a little web or membrane filling half the space betwixt the toes. In addition to this, it may be stated that the bill is smooth, without any provision for breaking or grinding, as the French would say, *sans dentelures*. and flattened along the sides ; and the feet are short and small. Like other aquatic birds, there is a small portion of the legs naked and without feathers, by which they are enabled to propel themselves with greater ease through the watery element. The body is covered with down, abundant and close.

The family of the sea-swallow is found both in Europe and Asia, and also in the islands of the Pacific. In flying their cry is acute and piercing ; in calm weather they sometimes elevate themselves to an astonishing height, and before their migratory flights, they assemble together in great multitudes. It is remarked, that they are never so noisy and restless as at the time of building their nests. They live on little fish and winged insects.



THE PLANE-TREE.

PLANE-TREE.

Persian name, CHENAR. Elegance and beauty

ISAIAH, LV. 12.—“*For ye shall go out with joy, and be led forth with peace; the mountains and the hills shall be led forth before you into singing, and all the trees of the fields shall clap their hands.*”

It is true we do not meet with the name *plane-tree* in Scripture; but as this tree is common in the Levant, and was abundant in Canaan, as it is a tree which almost exceeds all others in elegance and shady verdure, there can be no doubt that the inspired poets must have had this tree in their eye, in the lovely and glowing descriptions of nature with which their writings are stored. Take the following as a specimen. (Psalm cxlviii. 9.) “Praise the Lord, fruitful trees and all cedars.” (Isaiah, xlv. 23.) “Sing, O ye heavens; for the Lord hath done it: shout ye lower parts of the earth: break forth into singing, ye mountains, O forest, and *every tree* therein: for the Lord hath redeemed Jacob, and glorified himself in Israel.”

The PLATANUS, or plane-tree, is a genus of the *polyandria* order, belonging to the *monœcia* class of plants. There are two species, the *orientalis*, or that which belongs to Asia; and the *occidentalis*, or that which is found in America, the western world.

The oriental, or eastern plane-tree, rises with a very

straight, smooth, branching stem, and to a great height. The leaves are palmated, six or eight inches long, and as much broad. They are divided into five large segments, green above and pale beneath. There are long pendulous *pedunculi*, each sustaining several round heads of close-fitting small flowers, and which are followed by numerous downy seeds, collected into round, hard, rough balls.

These elegant trees are of hardy temperature. They were in great esteem among the ancients in the East, for their uncommon beauty, and for the delightful umbrageous shade which they afforded by their noble foliage. The leaves burst from their buds in May, and fall off early in autumn. Their straight growth, regular branching heads, and the lofty stature they attain, together with the extraordinary breadth of their luxuriant leaves, render them very desirable for adorning avenues, lawns, and woods. No trees can exceed them for the delightful shade they furnish, on account of their noble spreading foliage.

In virtue, grace, loveliness of life, and usefulness may we resemble this noble tree! May we be trees of righteousness, the planting of the Lord!



THE SYCAMORE-TREE.

SYCAMORE-TREE.

שקמוח, SHIKMOT. *Probably, signifying height.*

LUKE, XIX. 4.—“*And he ran before and climbed up into a sycamore-tree to see him ; for he was to pass that way.*”

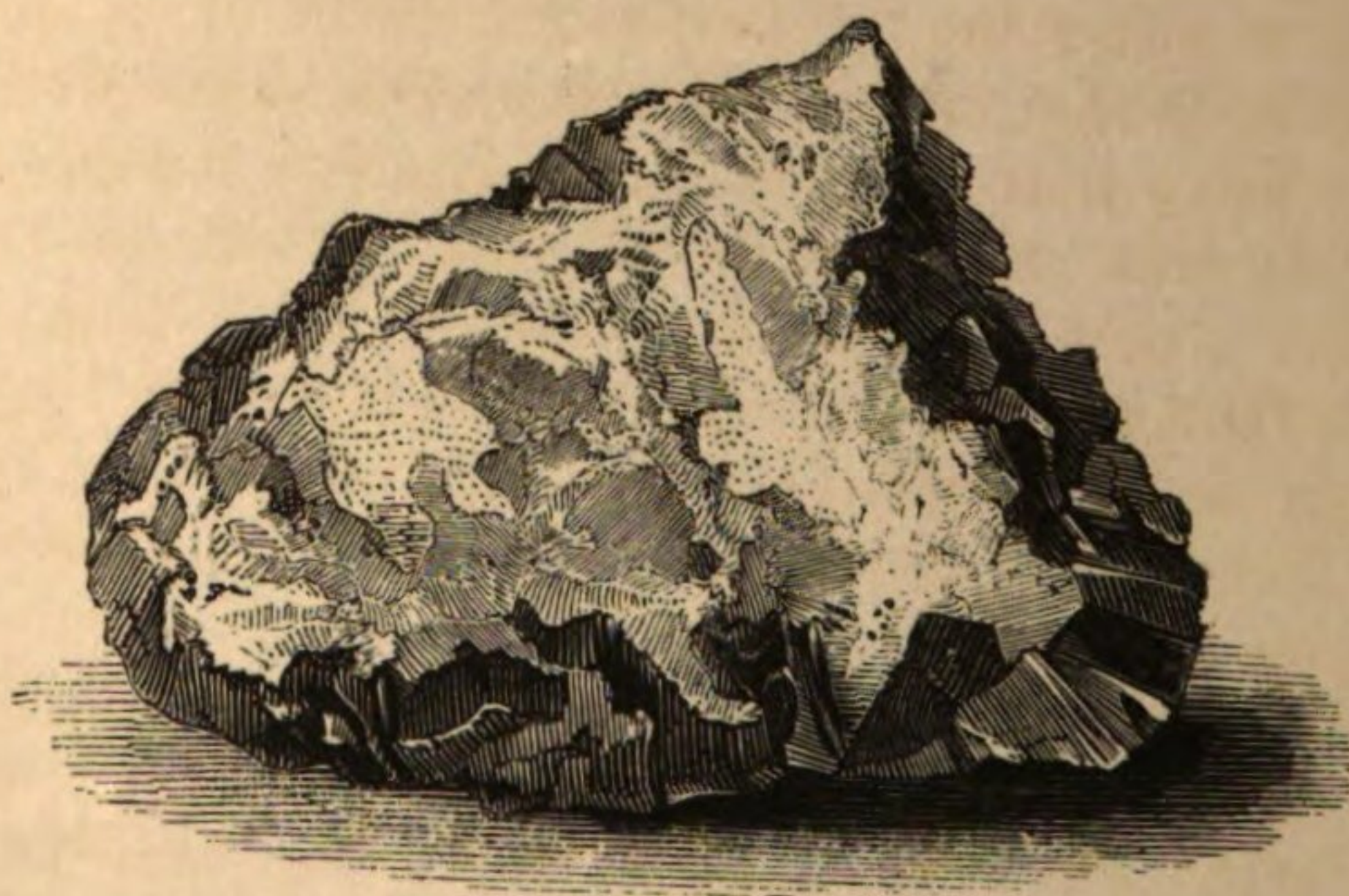
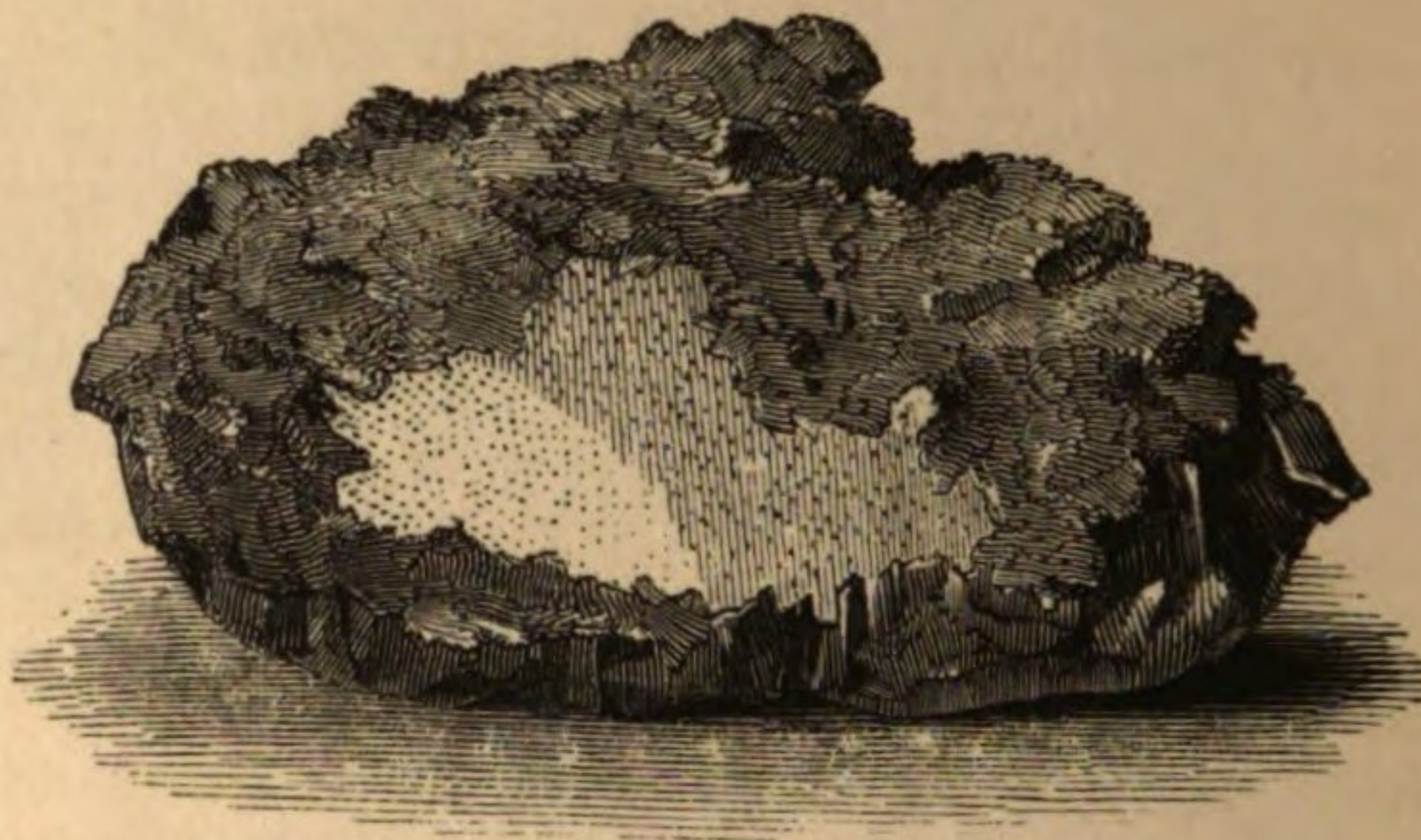
THIS species of tree greatly abounded in Palestine. (1 Kings, x. 27.) Of Solomon it is said, “And cedars made he to be as the sycamore-trees that are in the vale for abundance.” In the reign of David, they were watched over and cultivated with great care, for which purpose a particular officer was appointed. (1 Chron. xxvii. 28.) “And over the olive-trees, and over the sycamore-trees that were in the low plains, was Baal-hanan, the Gederite.” So valuable were the sycamore-trees to the Jews, that the destruction of them was considered as a great national calamity. Therefore the Psalmist introduces this circumstance into Psalm lxxviii. 47, when furnishing an account of the judgments which befel that guilty nation: “He destroyed their vines with hail, and their sycamore-trees with frost.” This tree is rendered famous by the incident recorded in Luke, xix. As Jesus entered and passed through Jericho, Zaccheus, the publican, was exceedingly desirous to see him. Being low of stature he was not able to see him for the press ; he therefore climbed up into a sycamore-tree to gratify his curiosity.

When Jesus drew near he addressed him by name, called him, accompanied him to his house, and saved him by his grace.

Ancient naturalists give the following description of the sycamore-tree. "It is large, resembling the mulberry-tree in the leaf, and the fig in its fruit; hence its Greek name *suken*, signifying fig, and *moros*, mulberry. Its fruit is palatable. When ripe it is soft, watery, somewhat sweet, with a little of an aromatic taste.

Norden, the celebrated traveller, gives the following description of the sycamore: "It is of the height of a beech, and bears its fruit in a manner quite different from other trees. It has them on the trunk itself, which shoots out like little sprigs in form of a grape-stalk, at the end of which grows the fruit close to one another, most like bunches of grapes. The tree is always green, and bears fruit several times in the year without observing any certain seasons, for I have seen some sycamores which had fruit two months after others. The fruit has the figure and smell of real figs, but is inferior to them in taste."

Dr. Shaw, in describing the catacombs and mummies of Egypt, states, that he found the mummy-chests and little square boxes, containing various figures, which are placed at the foot of each mummy, to be both made of sycamore-wood, and thus preserved entire and uncorrupted for at least three thousand years.



ORES OF GOLD.

ORE OF GOLD.

סגור, SEGOR. *Shut up.*

JOB, XXVIII. 15.—“*It cannot be gotten for gold.*” in the original, “*for gold in the mine,*” or in the “*ore.*”

GOLD is the most precious of all metals, and has been known from the beginning of the history of man. It is mentioned in the sacred description of the paradise of Eden. Moses, in speaking of the magnificent rivers which irrigated, fertilized, and beautified the terrestrial Eden, says, (Gen. ii. 10, 11.) “And a river went out of Eden to water the garden, and from thence it was parted and divided into four heads. The name of the first is Pison; that is it which compasseth the whole land of Havilah, where there is gold.” Such are the properties of gold, and such its scarcity, that it is more valuable than any other metal. The collecting of gold has been so uniformly difficult, that its value has altered little in the civilized world from generation to generation.

Gold is found either in its natural state of a certain degree of purity, possessed of all its properties, or engaged with some other metals in certain minerals. The gold which is found alone is called *native*, or *virgin* gold. This is generally encrusted, or found in different kinds of stones, principally in flints and quartz. It is the opinion of some, that the yellow brilliant

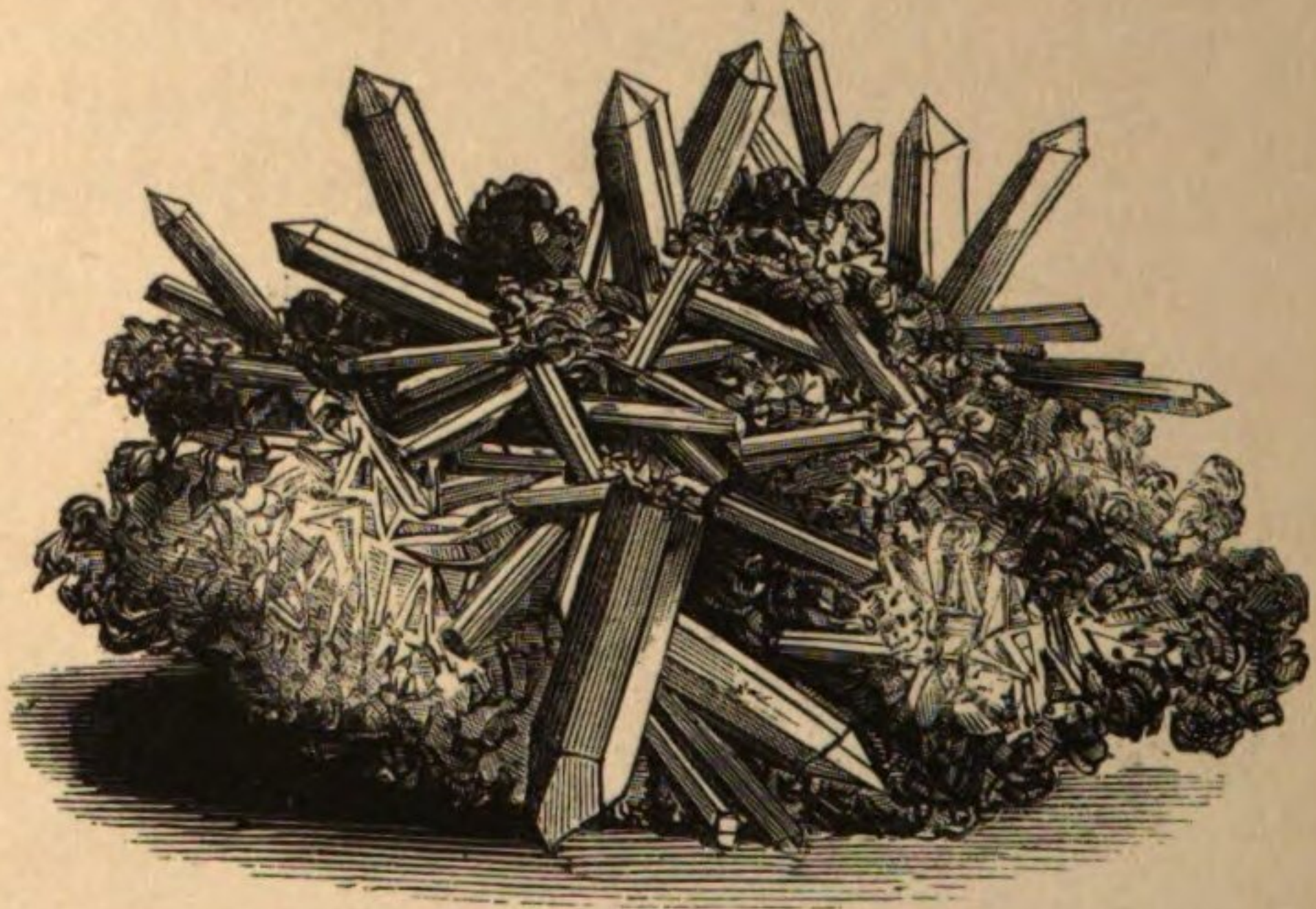
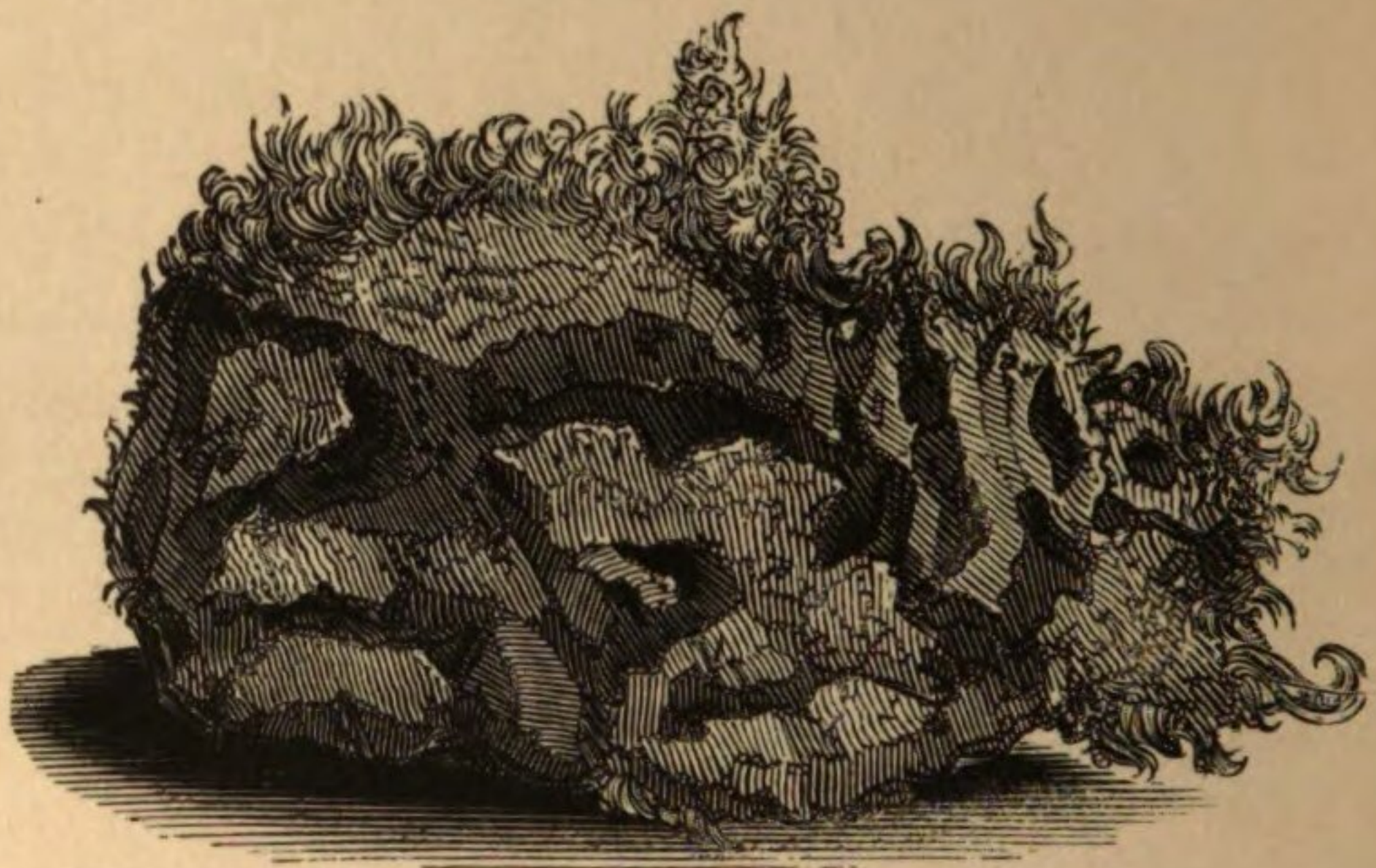
spots of the blue stone called *lapis lazuli*, are native gold. If so, they are very small.

Gold is found in fat and muddy earths, and Mr. Cramer affirms, that scarcely any sand can be found which does not contain gold. But the quantity is too small to compensate for the expense of obtaining it.

Though no proper ore of gold exists, yet it is found in several mineral substances, in which it is always accompanied with a much larger quantity of silver. The minerals containing gold are blend, cupreous and arsenical pyrites, ore of antimony, cinnabar, white ore of arsenic, vitreous and other silver ores, and the lead ore called *galena*.

Gold is found in considerable quantity in the sand of several rivers in France, such as the Rhine, the Arriege, and the Garonne. It is said to have been found in pure masses of about a pound weight in some of the German mines. In Peru it has been seen in a single mass about twenty-five pounds in weight. It is more generally found in loose particles, mingled with the sand of rivers, especially in Guinea, on the west of Africa. It is frequently bedded in stones of various kinds, and even in earth at the depth of one hundred and fifty fathoms.

Gold is often used in scripture metaphor. Of Christ it is said, "His head is as the most fine gold." (Song v. 11.)



ORES OF SILVER.

ORE OF SILVER.

כסף, KASEPH. *Paleness of colour.*

GEN. XX. 16.—“*And unto Sarah he said, Behold, I have given thy brother a thousand pieces of silver.*”

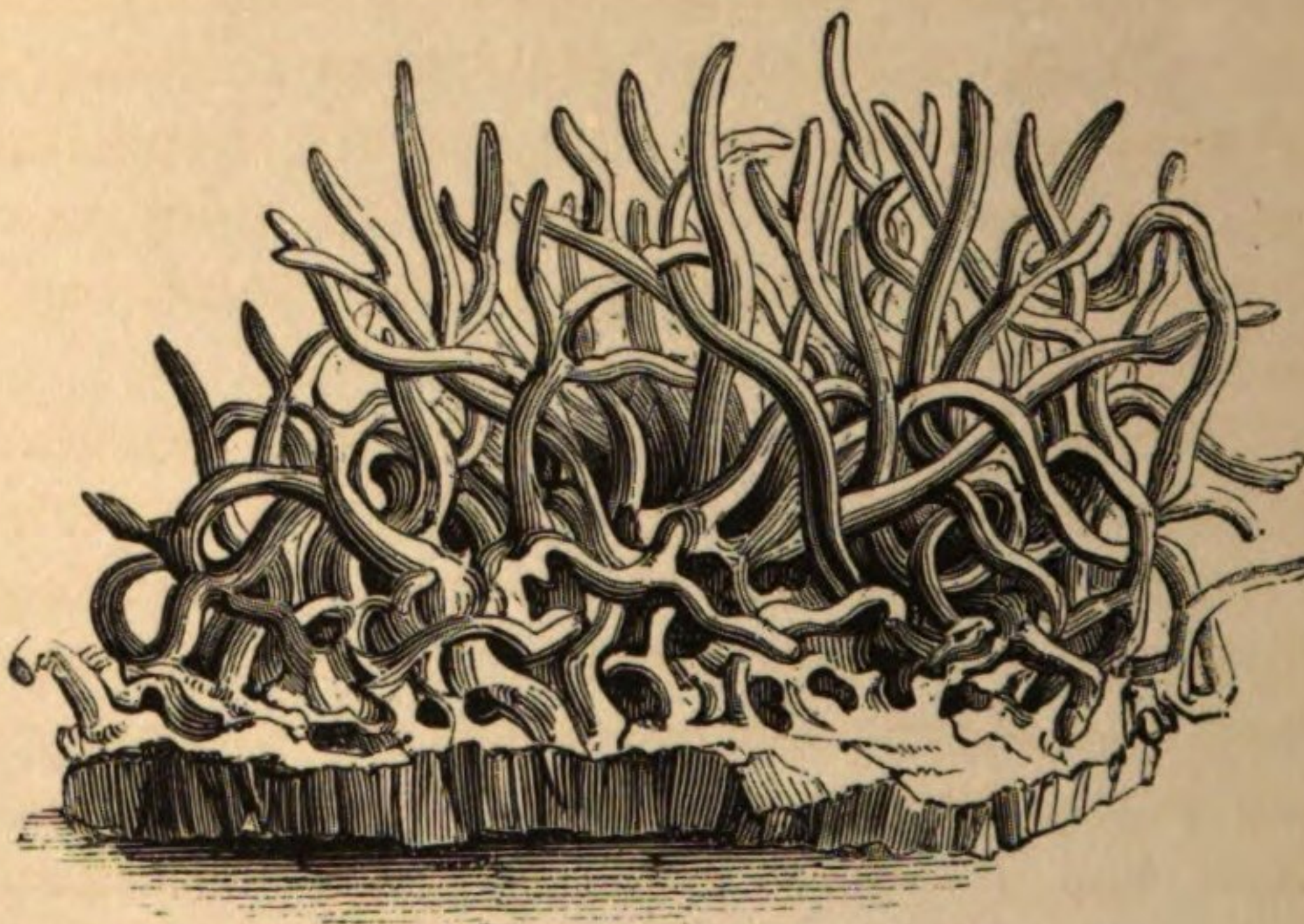
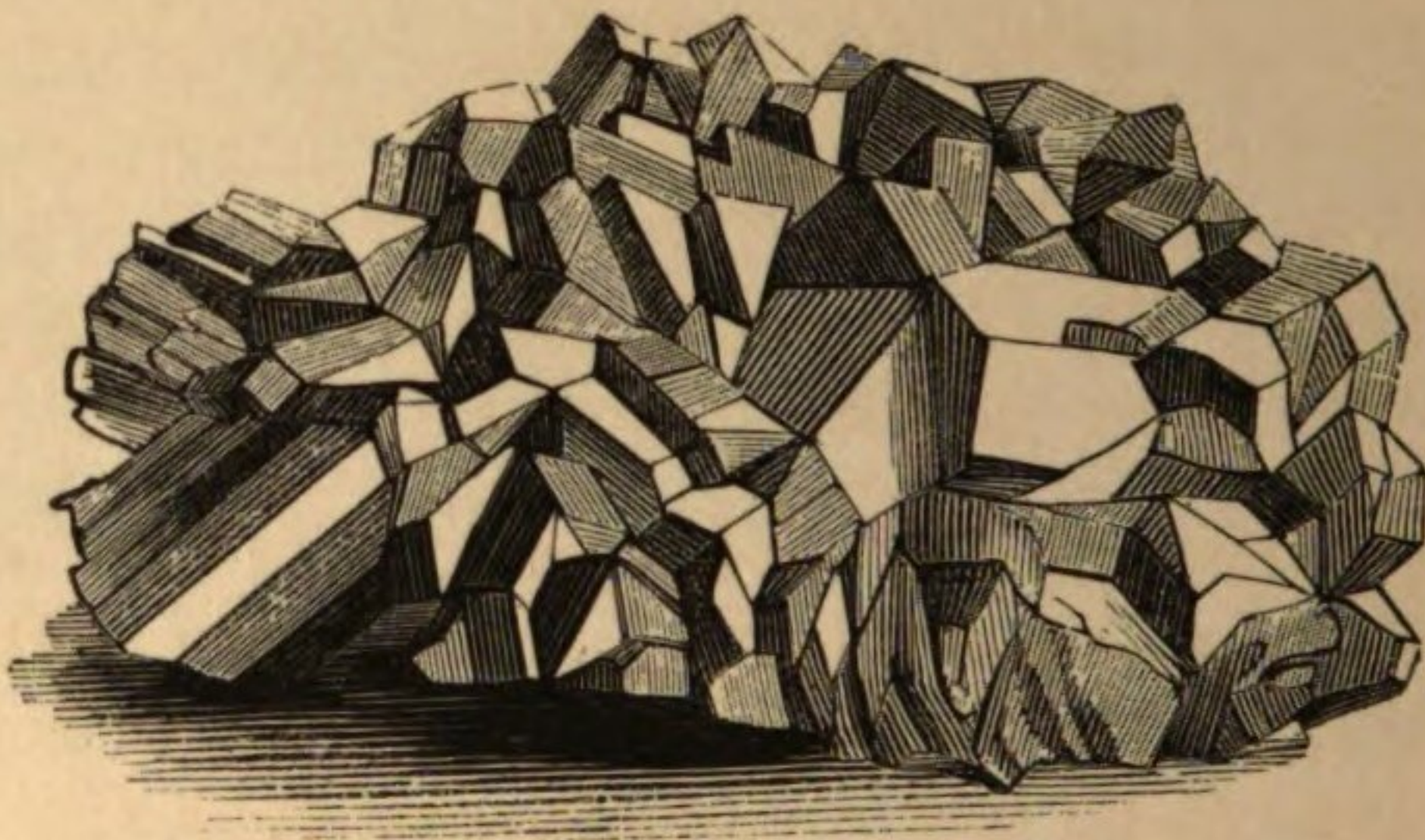
THERE is no mention made of silver in the history of man before the flood. But there is little doubt it was much sought and used after that tremendous and calamitous event. Among the precious metals it ranks next in order to gold. At a very early period of the history of nations, it was employed as money, as the representative of substances bought and sold, and as a convenient medium of traffic and commerce. Like gold, it is beautiful to look upon; and allusions to its beauty are frequently made in the most eminent poetical productions. How common is it to speak of the rivers and lakes reflecting the sun's beams, as resembling liquid silver. How often I have been powerfully struck with this appearance, when standing upon a lofty eminence in a bright summer's day, and looking on the brooks, rivers, and lakes beneath!

Though, strictly speaking, there are no gold ores; the ores of silver are numerous: we can only notice the chief. Next to gold, silver is most frequently found in the metallic state, that is, not mineralized by sulphur or arsenic. This *native*, or *virgin* silver, generally presents some regular form, and consists of

filaments, or vegetations of various figures. Some remarkable specimens of this description I have seen, which were brought from mountains in South America, celebrated for furnishing this precious metal in extraordinary quantities. One of our pictorial illustrations, gives a very accurate idea of virgin silver in the vegetable form. Silver also is found in the form of plates, of fibres, or of grains, or crystallized. Another of our pictorial illustrations gives a clear representation of this last description, namely, the crystallized.

The three principal ores of silver, which are very rich, but very rare, are, the *vitreous silver ore*, almost as soft and fusible as lead; the *horny*, or *corneous silver ore*, so called from its colour and semi-transparency, by which it resembles horn. It is found in Saxony. The third is the *red silver ore*, or *rosiclaræ*. Its colour is more or less red; it is sometimes crystallized, and very heavy. It is frequently semi-transparent.

The ancients found ore in the mines of Tarshish. After the discovery of America, the Spaniards imported immense quantities from Mexico and Peru. It was much used in the building of Solomon's temple. The trumpets used by the Levites were made of silver, and were typical of the gospel trumpet, by which salvation is proclaimed to ruined man.



ORES OF IRON.

ORE OF IRON.

ברזל, BARZEL. *Iron.*

GEN. IV. 22.—“*Tubal-Cain, an instructor of every artificer in brass and iron.*”

FROM the quotation above, it appears that iron was known almost coeval with the history of man. It is of all metals the most common, and of all the most useful. There is no metal which can be applied to so many purposes serviceable to man, as iron. It is therefore, without exception, the most valuable mineral production. Without it man would soon be reduced to the greatest wretchedness. It is truly wonderful to think of the benefits which it confers upon our race, and of the innumerable comforts which, under God, this metal bestows.

Iron is seldom found in its metallic state, like gold and silver, free from mixture. The minerals wrought for iron are three, viz. : iron ore, iron stone, and bog ore. Like the ores of other metals, iron ore is found in veins, and the appearance is various. Sometimes it has a rusty iron colour, resembling that of iron ; and sometimes it has a reddish cast. Often it is formed into a sort of crystallizations, which are protuberant knobs on the outside. These consist of fibres tending to a common centre, and of a dark colour like coagulated blood.

Iron stone in Scotland is found in strata with coal, containing a large quantity of iron, in consequence of which, the working is exceedingly profitable. There is, in our country, a vast extent of moorish land, which, as it respects the surface, is comparatively useless, but which, on account of this mineral below the surface, is to the proprietors a rich inheritance. This iron stone when dug from the ground has very little the appearance of iron, but when burnt with a certain degree of heat, it becomes of a deep red.

The *bog ore* is an ochre of iron. It is found generally in low situations, and in springs containing a small quantity of iron, which, flowing over these grounds, deposit it in the form of ochre. What is striking, after a number of successive ages, it proves a rich mine of iron. It is from a calx of this kind the iron is extracted in many parts of the world.

The *loadstone* is a noted iron ore. It is always found in veins, and said only to possess its magnetic qualities when near the surface. In its appearance it does not differ from many of the ores of iron. Treated as an ore, it affords a considerable quantity of metal.

Figuratively, iron is very often mentioned in Scripture. When the heavens yield no rain, and when the earth is barren, the heavens are called *iron*, and the earth *brass*. (Levit. xxvi. 19.) Iron, applied to yoke, signifies something galling. (Jer. xxviii. 13.)



THE DROMEDARY.

DROMEDARY.

בכר, BACAR. *To go before.*

ESTHER, VIII. 10.—“*And he wrote in the king Ahasuerus' name, and sealed it with the king's ring; and sent letters by post on horseback, and riders on mules, camels, and young dromedaries.*”

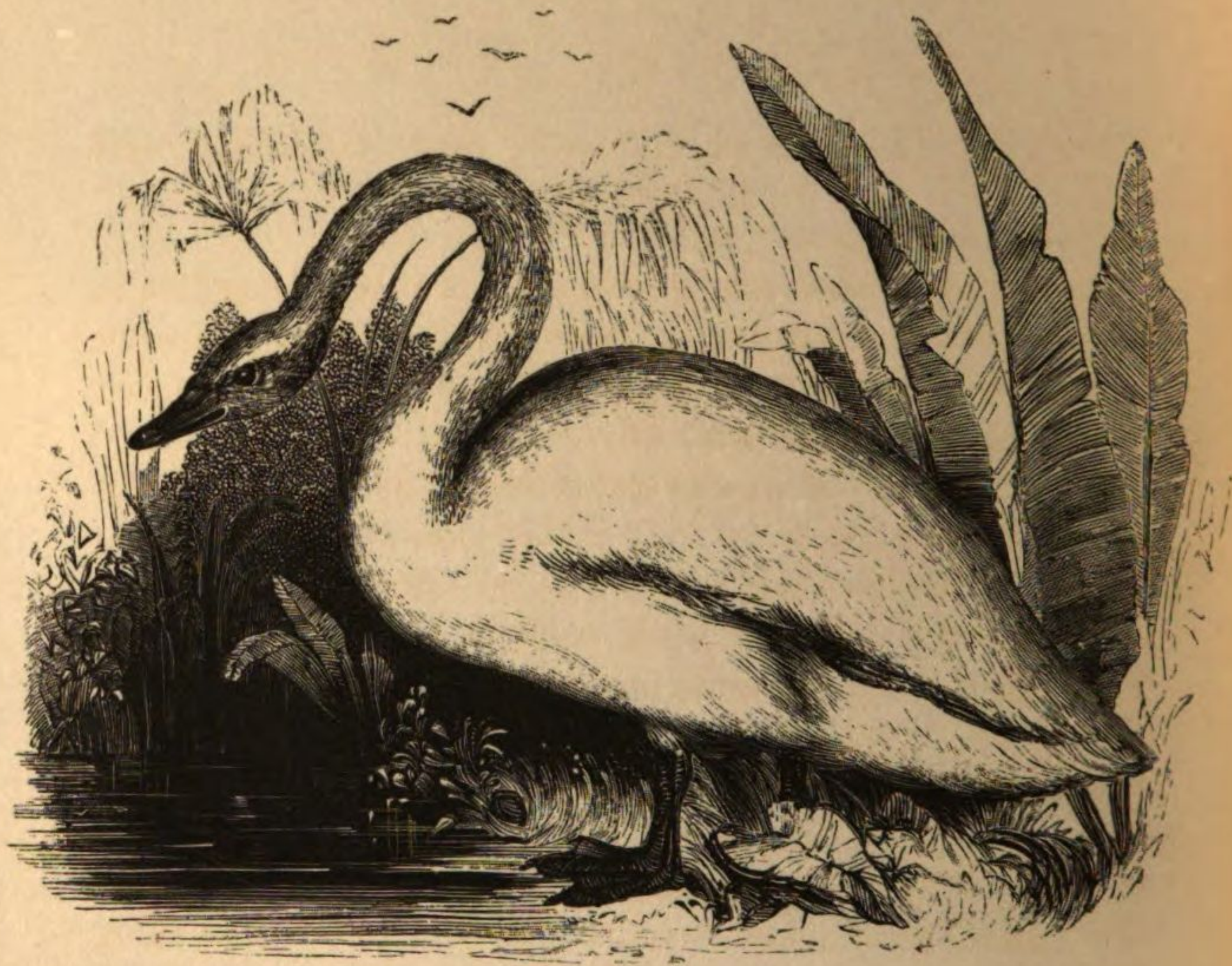
DROMEDARIES are a species of camels, and remarkable for their swiftness. They differ from the camel in two respects. The camel has two protuberances on its back, the dromedary only one;—the camel is accustomed to slow paces which most suit its nature, while the dromedary will travel as far in one day as the camel will do in three. It is therefore on account of its *swiftness* it receives the name *bacar*, which signifies *to go before*. The inspired prophet, in speaking of the different commodities which the converted nations of the earth would dedicate to the service of Christ and his cause, makes mention of the dromedaries, among other useful animals, which would form a part of the voluntary sanctified tribute. (Isaiah, lx. 6.) “The multitude of camels shall cover thee, the dromedaries of Midian and Ephah; all they of Sheba shall come; they shall bring gold and incense; and they shall show forth the praises of the Lord.”

The dromedary is the Arabian camel. It is found in the warmer parts of Asia, and in the upper regions

of Africa. In Asia it is not found further than Persia ; and in Africa, not further than Ethiopia. It is common in most parts of India.

The general height of the dromedary from the ground to the top of the bunch upon its back is about six feet and a half. Its height from the ground to the top of its head, when it elevates it, is nearly nine feet. The head and neck are seldom elevated, but chiefly stretched out in a line with the bunch on its back. The head is small, the neck much elongated, the body of a long and meagre shape, the legs rather slender, and the tail, which is slightly tufted at the end, reaches to the joints of the hind legs. The feet are large. They are peculiarly hoofed, being divided above into two lobes, not reaching through the whole length of the foot. The extremity of the foot is defended by a small hoof. The under part of the hoof is covered with an extremely tough and flexible skin, which enables the animal to travel with peculiar ease and security over dry, stony, and sandy regions. The general colour is an uniform dusky brown, more or less tinged with the ferruginous, or *irony*. Its hair is fine and soft, and serves for the manufacture of several kinds of stuffs.

O may the day soon arrive, when converted Arabs, riding on swift dromedaries, shall convey the gospel throughout Asiatic regions !



THE WILD SWAN.

WILD SWAN.

תנשמת, THINSEMETH. *To breathe out.*

LEVIT. XI. 18.—“*And the swan, and the pelican, and the gier-eagle.*”

THE name *thinsemeth* is supposed to be given to the swan from the manner in which it breathes. It only occurs in two places of holy writ; in the place quoted above, and in Deut. xiv. 16.

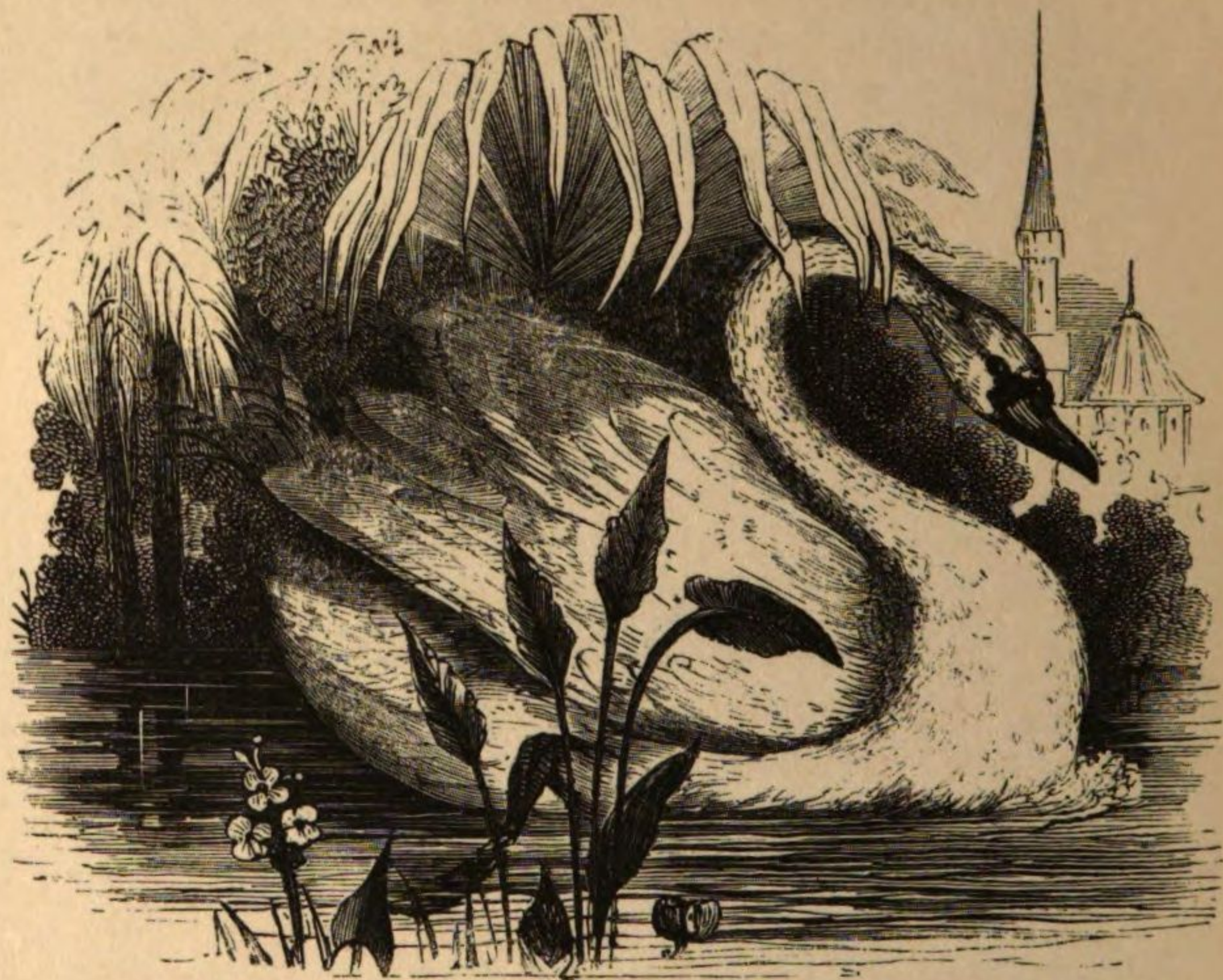
The nostrils of swans are pierced in the middle of the bill; the neck is long; they are residents of the water, on which they swim with much ease and gracefulness. All aquatic birds look well upon the water, but the stateliness and majesty of the swan moving upon the liquid element are such, that no other birds residing upon the waters can at all equal it in the nobleness of its appearance, while it moves onward in its course. The beauty, graceful motion, and majesty of the tame swan, when wafted along a piece of water, amid the ornamental grounds of some wealthy proprietor, attract the admiration of every beholder, and have by no means passed unnoticed by the poets. But out of the liquid element, the elegance of its form and the gracefulness of its movements entirely vanish.

There are two kinds of swans; the *whistling* swan, and the tame, or *mute* swan. From the Hebrew name

given in Scripture, the former, or *whistling* swan, is the one alluded to by the inspired writer.

Its bill is semi-cylindrical and black ; cere, yellow ; body, white ; head and nape, slightly tinted with yellowish streaks ; iris, brown ; legs and feet, black. The female is somewhat smaller than the male, and the young are grey. The length of the full-grown male is from four feet five to four feet nine inches ; the extent of wing six feet three inches ; and the weight from fifteen to twenty-five pounds.

The *whistling*, or *hooping* swan, inhabits Europe, Asia, and America. They prefer the northern regions of the globe ; and in hard winters they appear in small flocks of eight or ten on the coast of France, England, and other countries. On the approach of spring they quit their southern stations, and again retire northward to breed. A few, however, drop short by the way, and perform that office in the Hebrides, the Shetland or the Orkney Islands. In the two latter, and in the Faroe Islands, large flocks of them annually arrive in October, and pass the winter about the numerous fresh water lakes. In their migrations they fly very high in the air, and in such compact array, that the bill of the one seems to touch the tail of the other. The wild swan has been styled “the peaceful monarch of the lake.”



THE TAME, OR MUTE SWAN.

THE TAME, OR MUTE SWAN.

THE bill of the tame swan is red; the fleshy tubercle and the base and edges of the mandibles black, and the body white. In length, size, and weight, it differs very little from the whistling, or hooping swan already described. Calmet's account of this bird is striking and interesting. "The swan is a large water-fowl, that has a long neck, and is very white, excepting when it is young. Its legs and feet are black. Its bill is like that of a goose, but somewhat rounder, and a little hooked at the lower end of it. The two sides below its eyes are black and shining like ebony. Swans use their wings like sails, which catch the wind, so that they are driven along in the water." This is a peculiarity connected with this water-bird; and they who have seen its snow-white wings expanded, with the light feathers fluttering in the breeze as it moves rapidly along the glassy surface of the crystal lake, cannot easily forget the impression produced by a sight so noble, imposing, and animating. Calmet goes on to observe, "Swans feed upon herbs and some sort of grain, like a goose; and some are said to have lived three hundred years. The swan is reckoned by Moses among the unclean creatures; but it was consecrated to Apollo, the god of music, because it was said to sing melodiously when near expiring; a tradition generally received, but fabulous." What, however, is fabulous

of the swan, is true of the child of God. It is in the valley and shadow of death he sings with greatest sweetness the songs of Zion.

Swans watch their brood with astonishing care. On such occasions they should be approached with marked caution. Then they will fly upon a stranger with great violence, and inflict severe blows with their wing, and with such force as to be sufficient to break a man's leg.

In Siberia and Russia, multitudes of this species are found unclaimed. They are likewise to be found without owners on the Trent, on the inlet of the sea near Abbotsbury in Dorsetshire, and on some rivers and lakes in different parts of the British isles. For many ages they have been protected upon the Thames as royal property; and it is still reckoned felony to steal their eggs. The great number of swans on the Thames for many miles to the west, adds much to the liveliness of the unequalled verdant scenery furnished by the banks of that noble river.

The female chooses the nest in little islands in the lakes or rivers, or among the rough herbage of the water's edge, where it lays from six to eight large, white eggs.



THE BAT.

BAT.

עלע, OTELAPH. *To fly in darkness.*

ISAIAH, II. 20.—“*In that day a man shall cast his idols of silver, and his idols of gold, which they made each one for himself to worship, to the moles and to the bats.*”

THERE is mention made of the *bat* in two other parts of Scripture, namely, in Levit, xi. 19, and in Deut xiv. 8, in both of which places it is introduced among the animals which it was not lawful for the Jews to eat, and which were pronounced unclean.

The Hebrew compound name given to the bat is peculiarly descriptive of its character and habits. The word *otelaph* is compounded of two words, the one signifying darkness, and the other to fly; therefore the literal translation of its Hebrew name is, *the flier in darkness*. The Greek name is also very descriptive, namely, *nukteris*, signifying night; and also the Latin name, *vespertilio*, from *vesper*, signifying night.

The following *characters* belong to the various species of bats. “The skin of the body is laterally prolonged to the extremities of the toes; the toes, or fingers of the fore-limbs, much longer than those of the hinder, united by broad membranes, usually without claws; the thumb separated, but always very short in proportion to the other toes, except in the genus *pteropus*, and

always armed with a strong and very sharp claw. The toes of the hind feet are united, very short, and provided with very strong nails. The cutting-teeth are sometimes wanting in one of the jaws, and vary in number from two to six. The canine-teeth are very strong, and the grinders in most instances have sharp protuberances. The membrane with which they fly, and which resembles a wing, is naked. There is either a tail, or the rudiments of one. The ears are almost always large in proportion to the size of the animal."

The wings are a most beautiful and singular construction. These consist of an extremely thin, light, and delicately formed membrane, surpassing the finest texture of silk, extending from one shoulder entirely round the body to the other. This connects the fore and hind legs, and is capable, from its firmness and pliability, of being contracted at pleasure into innumerable folds, so as to occupy little room, and give the animal no inconvenience when at rest, and also capable of being stretched to a wide extent for occasional flight. The eyes are deeply seated in the head and scarcely visible. Even when their eyes have been destroyed they can fly about with the utmost safety. This has been confirmed by many facts, and is owing to some mysterious, unknown bodily sense!



THE VAMPYRE-BAT

VAMPYRE-BAT.

THERE are several allusions made in Scripture, not only to beasts unclean, but also to those which are peculiarly blood-thirsty and voracious. The vampyre-bat, though insignificant in size, completely agrees to this description.

In its appearance it differs very materially from the common bat, or *vespertilio*. Its muzzle is short; its thumb long and vigorous; the tongue is beset with horny *papillæ*, that is, little protuberances resembling *nipples*, and is directed backwards: it has no tail; the eyes are large; and it is without external ears. It is in length from five inches to a foot, and the extent of the expanded membrane, constituting the wing, from two to six feet. Sir Hans Sloane possessed a specimen from Sumatra, whose outstretched membrane measured the remarkable length of seven feet. This hateful creature is an inhabitant of the west of Africa, the south of Asia, and the islands of the Indian Ocean and South Seas. It is common in Madagascar, where a human female vampyre fills the throne, and stains her reign with blood. It is a native of the isle of Bourbon, and is very frequent in the islands of the Indian Archipelago. In the Friendly Islands, Dr. Forster saw five hundred of them hanging to a single tree, some holding by the fore feet, and some by the hind. They are in such quantities in these islands,

that they often darken the air, and indiscriminately devour fruits, flowers, and insects, and the juice of palm-trees, of which they drink so excessively, as actually to fall senseless to the ground. Drunkard, look ! here is thy picture ! But not so vile and hateful as thou art, under the power of thine overwhelming intemperance !

This species of bat has the name *vampyre* from an imaginary monster, which was supposed to suck the blood of persons asleep. It has the reputation of sucking the blood of those who lie with their hands or feet exposed, and even in some instances of bleeding them to death ! It is said to be such a dexterous phlebotomist, or *blood-letter*, as to insinuate into the flesh its aculeated, or sharp-pointed tongue, and even to penetrate into the vein. Then it sucks till it is satiated, fanning all the while with its wing, and thus lulling its victim into deeper slumbers. What a striking picture of the crafty determined tempter ! Afflicting to think that there are now at work many thousands of such vampyres, sucking out the vitals of the happiness of their deluded victims, whom they fan with the wings of carnal pleasure into a deadly repose !



THE SPECTRE-BAT.

SPECTRE-BAT.

SOMETIMES the *phyllostoma spectrum*, or spectre-bat, is denominated *vampyre*, from the resemblance it bears to it in its habits. The nose is funnelled and lanceolate, or resembling a lance, and the ears are ovate, or shaped like an egg.

This is a smaller species than the vampyre, but not less disgusting in its appearance, nor less vexatious in its depredations. It inhabits South America and New Holland. Other bats usually resort to forests and the most deserted and solitary places ; but these have the presumption to enter towns and cities, and even to darken whole streets. Ulloa, and many other travellers, have confirmed the fact of their blood-letting propensities, and how much they have practised their powers of this kind upon the extremities of persons asleep. Condamine mentions, that they have destroyed all the cattle introduced by the missionaries, at one period, in the distant island to which we have referred. At Rosehill, near Port Jackson, more than twenty thousand spectre-bats were supposed to be seen within the space of an English mile. Some that were taken alive became so suddenly tame, that they would eat from the hand almost immediately after, and in a few days became as domestic as if they had been bred in the house. General Phillips had a female of this

species which would hang by one leg for a whole day, without changing its position. In this singular attitude, with its breast covered with its wing, it would eat whatever was offered to it, lapping from the hand like a cat.

HABITS OF BATS.

They usually produce their young about midsummer, and generally two at a birth. At first the young are quite naked, and have been compared, by some of the old writers, to human infants. They are suckled by the dam, and, from the moment they are born, they cling to her body with such firmness, that they are not to be shaken off, even by her flight in quest of food. During the day they conceal themselves in caverns or the crevices of old buildings, and as the sky begins to be darkened by the shades of night, they sally forth in search of insects, flies, gnats, and moths, which swarm in the air. While pursuing their prey, their mouth is widely opened, almost from ear to ear.

On the approach of the cold weather they retire to their hiding-places, where they fall into a kind of stupor, or deep sleep, called *hybernation*, and from which they do not awake till the warm, genial temperature of another season returns. To such contemptible creatures as these the idols of the nations shall be cast. (Isaiah, ii. 20.)



THE APE.

THE APE.

קופ, CAPH. *To go round.*

1 KINGS, x. 22.—“*For the king had at sea a navy of Tharshish with the navy of Hiram : once in three years came the navy of Tharshish, bringing gold and silver, ivory, and apes, and peacocks.*”

It is very probable that apes receive the Hebrew name *cophim*, from their peculiarly antic gestures, and from their frequent *circumgyrations*, or whirling round, to which they have so great an instinctive propensity, and which furnishes so much amusement to all who behold them.

Apes and monkeys belong to the order *quadrumana*, which word signifies, literally, *four hands*. Such animals have their thumbs, or great toes, separated at the four extremities. The first family of this order consists of *simiæ*, or the numerous tribes of monkeys and apes. Their teeth are generally arranged like those of the human family. They differ from the human form in the flatness of the nose, in the apparent want of chin, lips, and calves of the legs. For the most part their arms and fingers are long, their thumbs short, and their heels without prominence. Some have no tail, others are provided with tails of great length, and others have tails *prehensile*, that is, capable of laying hold, and by

which they can suspend themselves to branches of trees, and assist themselves in moving from one branch to another.

SATYR, OR ORANG-OUTANG.

שְׂעִירִים, SOERIM. *Rough and hairy.*

ISAIAH, XIII. 21.—“*And owls shall dwell there, and satyrs shall dance there.*”

THE name *satyr*, and the Hebrew name *soerim*, signifying *erect* and *rough*, exactly correspond with the appearance of the most remarkable description of the *simiæ*, or ape family. They are without tails, chesnut or dark coloured; the haunches naked, and the hair on the lower part of the arms reversed, or turned upwards toward the elbow. The head is rounded, the body perpendicular, like human beings. Of the orang-outang there are six species, and all inhabitants chiefly of the old or Asiatic continent.

In the Malay language, *orang-outang* is said to signify the *wild man*. From the numerous points in which he resembles man, it is not at all surprising he should have received such a name. The ears, hands, and feet very nearly resemble those of man, and, indeed, the whole external appearance approaches the human form more than any of the ape tribe. There are, however, many characteristic marks of difference,



THE SATYR, OR ORANG-OUTANG.

which we have not room to introduce into our limited description.

The orang-outang chiefly inhabits Madagascar, some parts of the East Indies, the island of Borneo, and also the deserts of interior Africa. In its wild state it subsists chiefly on fruits, which are found in lonely desolate regions, far from the abodes of men. It makes its resting-place on trees, where it is secure from all enemies, except serpents. These animals are seldom taken alive full-grown, because they usually roam in companies, armed with clubs, with which they boldly and fiercely attack the most formidable opponents. In the woody regions, on the banks of the Gambia, they move in very numerous bands, having their leaders from among the largest, the strongest, and the most experienced of their number. There is much singularity in their dwellings. They are composed of plants and branches of trees, so thickly matted as to exclude the verticle rays of the sun. By travellers, the ground was seen to be beaten smooth about their paths and dwellings. When the mountain-fruits are exhausted, they go down to the sea-coast, and feast on shell-fish, and particularly on a large species of oyster, which commonly lies on the strand with its mouth open. Lest the fish should close its shells upon their paws, they very carefully place a stone betwixt the valves of the shell, and then devour the contents at their leisure. Large accounts might be given of their astonishing powers of imitation.

GREAT BABOON.

WE learn, from 1 Kings, x. 22, that king Solomon imported *apes* into his kingdom. There is no doubt, therefore, from the plural number being employed, that he imported a great variety. We have reason to believe, from the extent of his navy, and from his mercantile connexion with the distant and opulent nations of the East, that he imported a vast variety of commodities, which were the produce of those countries. In all likelihood, he had a vast and interesting collection of animals from different nations. We are, therefore, fully warranted in giving a description of some of the most striking *species* of the ape family.

The *sphynx*, or great baboon, has hazel irides, ears small and naked, face resembling a dog, sides of the nose of a violet hue, the opening of the mouth small, hair on the forehead very long, and turned back. Mr. Pennant describes a live one which he saw in Chester, as five feet high, very strong in all its parts, and exceedingly fierce. This species is found in the hotter parts of Africa. They live on succulent fruits and nuts; they are very fond of eggs, but reject all flesh-meat unless dressed. That which was seen at Chester was very fond of cheese. Its voice was a roar, not unlike that of a lion. It walked on all-fours.



THE GREAT BARBOON.



THE DOG-FACED BABOON.

DOG-FACED BABOON.

THE *hamadryas*, or dog-faced baboon, has a long, thick, strong nose, covered with a smooth red skin. The ears are pointed, but so small as to be hid in the hair. The head is large and flat. On the head, and fore part of the body as far as the waist, the hair is long and shaggy. The limbs are strong and thick: the hands and feet dusky: the nails on the fore feet flat; those on the hind resemble those of a dog: the tail is nearly the length of the body, and generally carried erect. They prevail in the hottest part of Asia and Africa. They keep together in vast troops, and travellers require to be much on their guard, for they are both dangerous and fierce. Being very partial to fruit, they very unceremoniously rob gardens whenever an opportunity presents itself. When they see strangers approach, they very speedily run up trees and show their *apish* displeasure; and when the passengers go by, they will shake the boughs at them and chatter very loud, as if they said, "Keep your distance—how dare you approach!" They are excessively impudent, indecent in their appearance, and in their manners peculiarly disgusting. In irrational animals, where there is no moral sense, this is not at all surprising; but indecency in human beings, endowed with reason, accountable to that Divine Being who gave them exist-

ence, how shocking and how culpable! Compared with such degraded specimens of our fallen nature, disgusting baboons are purity.

These animals range the woods in hundreds, which obliges the owners of the coffee-plantations to adopt the most cautious measures for their preservation.

We have the following curious description of one which was exhibited in London many years ago. It was from Mokha, in the province of Yeman, in Arabia Felix, on the Persian Gulf. Its height was about five feet. It was very fierce and untameable. Such was its strength, that it sometimes mastered its keeper, though a strong, active young man. On one occasion, a footman brought a little girl to see it: to tease the animal, he showed some frivolous, kind attentions to the child he had along with him; this enraged the beast to such a degree, that he caught hold of a quart pewter-pot. He threw it with such force and with so sure an aim, that had not the man's hat and wig softened the blow, his skull must have been severely injured, if not actually fractured. But he fortunately escaped, only with a common broken head. The naturalist who gave the account, thinks the baboon's rage was a paroxysm of jealousy.



THE PIGMY-APE.

PIGMY-APE.

THE *sylvanus*, or pigmy-ape, has a flattish face. There is a great resemblance in the ears to those of the human species. So diminutive is its size, that it is only about as large as a common cat. Above, the colour is of an olive brown; beneath, yellowish; the nails are flat; and what is common to many of the ape species, the buttocks are bare; it sits in an upright posture; the face is almost naked, and is long and wrinkled, giving it a most antiquated appearance; the eyes are very lively, and are round and reddish; it has no tail, but in the place, a small protuberance of skin, consisting of five or six lines in length. They are natives of Africa, abound in Ethiopia, but are found in numbers beyond description in Sara, in ancient Numidia. They were believed to dwell near the sources of the Nile, and to descend annually to make war on the cranes, and to steal their eggs. Some very curious fables are related of them by the ancients. They called them the nation of the *pigmies*. Aristotle, speaking of them by hear-say, states, that they were mounted on little horses, on goats, on rams, and even on partridges.

They feed on fruits, such as pine-apples, nuts, Indian figs, melons, and various kinds of roots and vegetables. They are very fond of insects, particularly ants. They assemble in troops, and turn over every stone in

search of them. If attacked by wild beasts they take to flight ; but if overtaken, will turn round and boldly face their pursuers. They often escape by the following ingenious expedient, namely, flinging in the eyes of their antagonists the subtle sand of the desert.

They really show much skill, and plan, and arrangement, when they sally forth on plundering expeditions. Even though much care is taken to prevent their depredations, yet their crafty ingenuity very often crowns their efforts with success. Before they enter upon the work of plunder, they always send one of their party to the top of some adjacent rock or tree, to give due notice to the rest of any appearance of danger or interruption. This sentinel keeps guard during the whole business : if he see any one approach, or if he hear any noise indicating danger, he gives a loud shriek, which his thievish associates understand. Then the whole troop scamper off, climb the trees, and carry along with them whatever booty they have obtained.

The females seldom produce more than one at a time. As soon as born it clings to the back of its dam, and cannot easily be shaken off.



THE HOWLING-MONKEY

THE HOWLING-MONKEY.

THE *simia seniculus*, or howling-monkey, is of moderate size. The length is about one foot nine inches. The tail is about the same length as the body, and prehensile. The general colour of the fur is a bright chesnut, or ferruginous red. The face is naked and black. It is rarely found in Brazil, but common in Cayenne. The howlers inhabit the moist forests in the neighbourhood of waters or marshes. They are usually found in the wooded islets of large flooded savannahs. They move in small companies, often in pairs, and sometimes singly. They have a peculiar, horrible, rattling scream, which they generally send forth in the mornings and evenings. These screams are repeated several times during the day, and also during the night. Strangers are very much surprised at the noises they make. They are so varied and so loud, as to produce the impression that all the savage tenants of the forest are united in chorus; while the sounds are only produced by two or three, and, sometimes by a solitary individual of the species. It is on this account that they have received the very characteristic name of *howling-monkeys*.

It is singular the accounts which travellers give of the noises which these animals send forth in the desert. They have compared them to the screaming of immense

herds of swine, and to the rolling of drums. Those who hear this for the first time are generally struck with great fear. They feel as if they were about to be attacked by ferocious beasts, sallying forth from some neighbouring forest. While under the influence of this alarm, the animals, from whom the noise proceeds, may be actually distant more than a mile. Some travellers have asserted, that these animals even observe some method in their howling vocal concert. They relate, that one of them mounts a high bench, while the rest seat themselves in order beneath. He who occupies the conspicuous place begins the howling, and, occasionally, for some considerable time, he performs a *solo*, the rest apparently listening with attention and delight. Then, upon a particular signal given by this leader, the whole company of monkey-choristers at once send forth their discordant peals, which make the very forests to re-echo with the sound. As they begin by a signal from the leader, so they finish by a signal from the same individual.

Dampier says, that he has seen these animals dancing from tree to tree over his head, making a terrible noise, exhibiting a variety of the most ridiculous grimaces, and casting at him broken pieces of the branches of trees.



BELZEBUL, OR PREACHING-MONKEY.

BELZEBUL, OR PREACHING-MONKEY.

FULL-GROWN, this species is about forty-four inches long. The tail forms nearly the half of whole length. The female is three or four inches shorter. The reason why this animal has received the name *belzebul*, is its ugly, forbidding appearance. It has, besides, a dark and thick beard about three inches long, hanging down from its chin, which gives the animal the mock air of a capuchin friar ; and hence it is called the preaching-monkey.

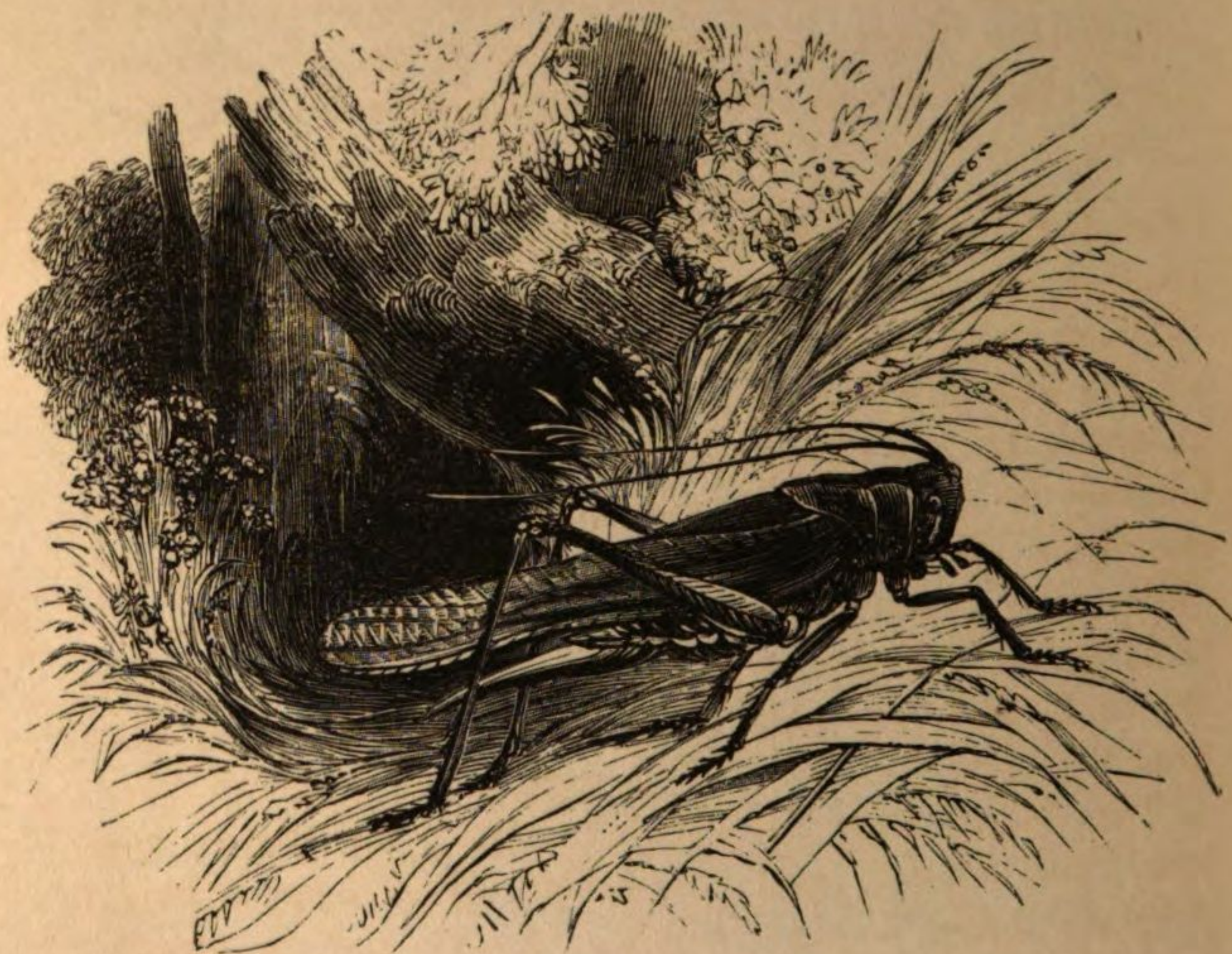
These baboons are very wild and mischievous, and therefore difficult to be tamed. Their aspect is hideous, the noises which they utter are most singular, resembling the sound of a drum, and actually heard at the distance of two or three miles. They keep together in parties of twenty or thirty, and can thus present a formidable front to their enemies. Here they show their wisdom and tact. Separately, they are weak ; but collectively, they are strong. What is true of them naturally, will be true of us morally and spiritually, if we unite together in opposing error and vice, and in endeavouring to promote virtue and holiness. Much, indeed, is to be learned by reflecting minds from the instincts and habits of irrational animals.

With the utmost ease they will ramble over the tops of woods, leaping from tree to tree. What is remark-

able, in this apparently dangerous situation, they never fall to the ground, even though they throw themselves headlong in the air.

They have their morning and evening meetings, when they assemble in vast numbers. On these occasions they make the air to resound with the most tremendous noise, which has been compared to the rumbling of many carts with their wheels ungreased. In their habits they bear a considerable resemblance to the howling-monkeys. One of them, for example, will sometimes mount on an elevated branch, while the rest seat themselves beneath. The president of the assembly seems to commence an harangue, and sets up a howl, sharp and loud, so as to be heard at a considerable distance. What is very ludicrous, and cannot fail to excite a smile in reading the narrative, but much more in those who witness the reality; the president then gives a signal with his paw, when the whole assembly join in frightful chorus. On another signal they are again silent, and allow the orator to finish his chattering address. It is rather humiliating to think, that some of our popular assemblages require to learn a lesson from these baboons of the desert.

See Edinburgh Encyclopædia. Edition, 1830.



THE GRASSHOPPER.

GRASSHOPPER.

חָגַב, CHAGAB. *To veil or darken.*

ECCLES. XII. 5.—“ *They shall be afraid of that which is high, and fears shall be in the way, and the almond-tree shall flourish, and the grasshopper shall be a burden.*”

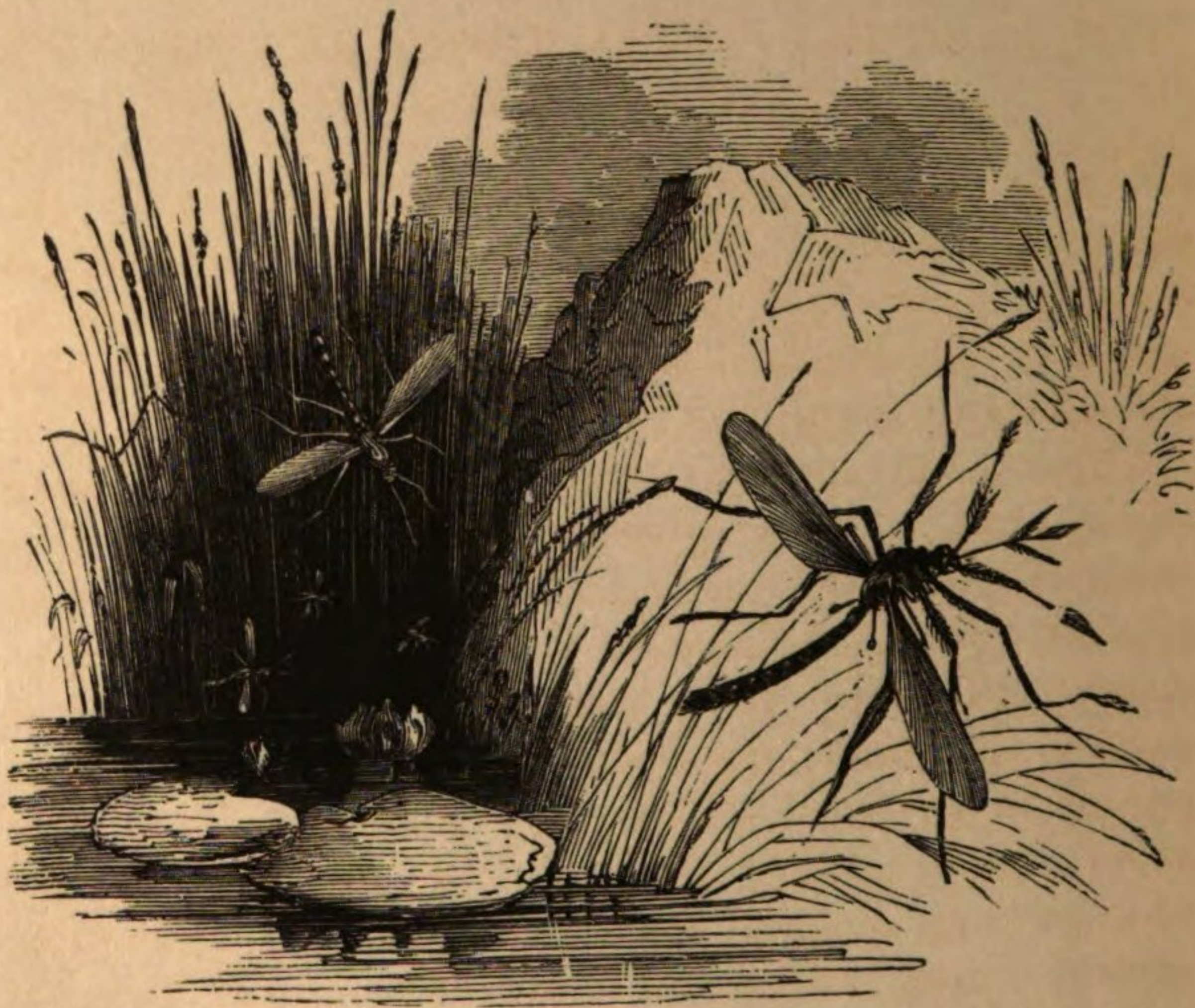
IN zoology, and in modern science in *entomology*, the grasshopper is a species of *gryllus*. From the vast numbers that are constantly seen in our meadows during the summer months, this insect is very generally known. Its colour, shape, habits, and voice are very familiar to every observer of nature. In its colour it resembles green leaves. Indeed, the green is vivid, glossy, and beautiful, resembling the most lively vegetable green. There is a line of brown which streaks the back, and two pale lines under the belly and behind the legs.

This insect may be divided into three parts; the head, the corslet, and the belly. The head is long, pointing down to the earth. Every one is struck with the resemblance which it bears to the head of a horse. Its mouth is covered by something similar to a buckler; this juts over it; is armed with teeth of a brown colour and hooked at the points. The tongue is large, reddish, and fixed to the upper jaw. The antennæ are long and tapering to a point. The eyes

are like two black spots, and very prominent. The corslet is elevated, narrow, and armed above and below by two serrated spines. The back is defended by a strong buckler. To this the legs are firmly bound. What is very singular, round these muscles are seen the vessels by which the animal breathes, as white as snow. It is provided with four wings. The hinder wings are much finer and more expansive than the foremost, and are chiefly employed in its flight through the air.

A short time after the wings are brought to maturity, the grasshopper fills the meadows with its notes. Like the music of birds, it is a call to courtship. The male only is vocal. It is toward the latter end of autumn the female deposits her eggs, sometimes amounting to the amazing number of one hundred and fifty. She is provided with an instrument resembling a two-edged sword, by which she pierces the earth as deep as she can, and thus prepares a suitable place for depositing her eggs. This operation she survives only for a short time. On the approach of winter she dries up, and then dies like a shrivelled old man, with complete decay.

In Scripture, men are likened to grasshoppers, on account of their insignificance. (Isaiah, xl. 22.) The grasshopper is a burden to an old dying man, showing that every trifle is an annoyance. (Eccles. xii. 6.)



THE GNAT.

GNAT.

Κωνωψ, KONOPS. *Bred in the lees of wine.*

MATT. XXIII. 24.—“ *Ye blind guides, which strain at a gnat, and swallow a camel.*”

GNAT, or *musca*, is a genus of insects belonging to the order of *diptera*. The mouth is furnished with a fleshy proboscis and two lateral lips. There are no less than one hundred and twenty-nine species, which are chiefly distinguished by their feelers.

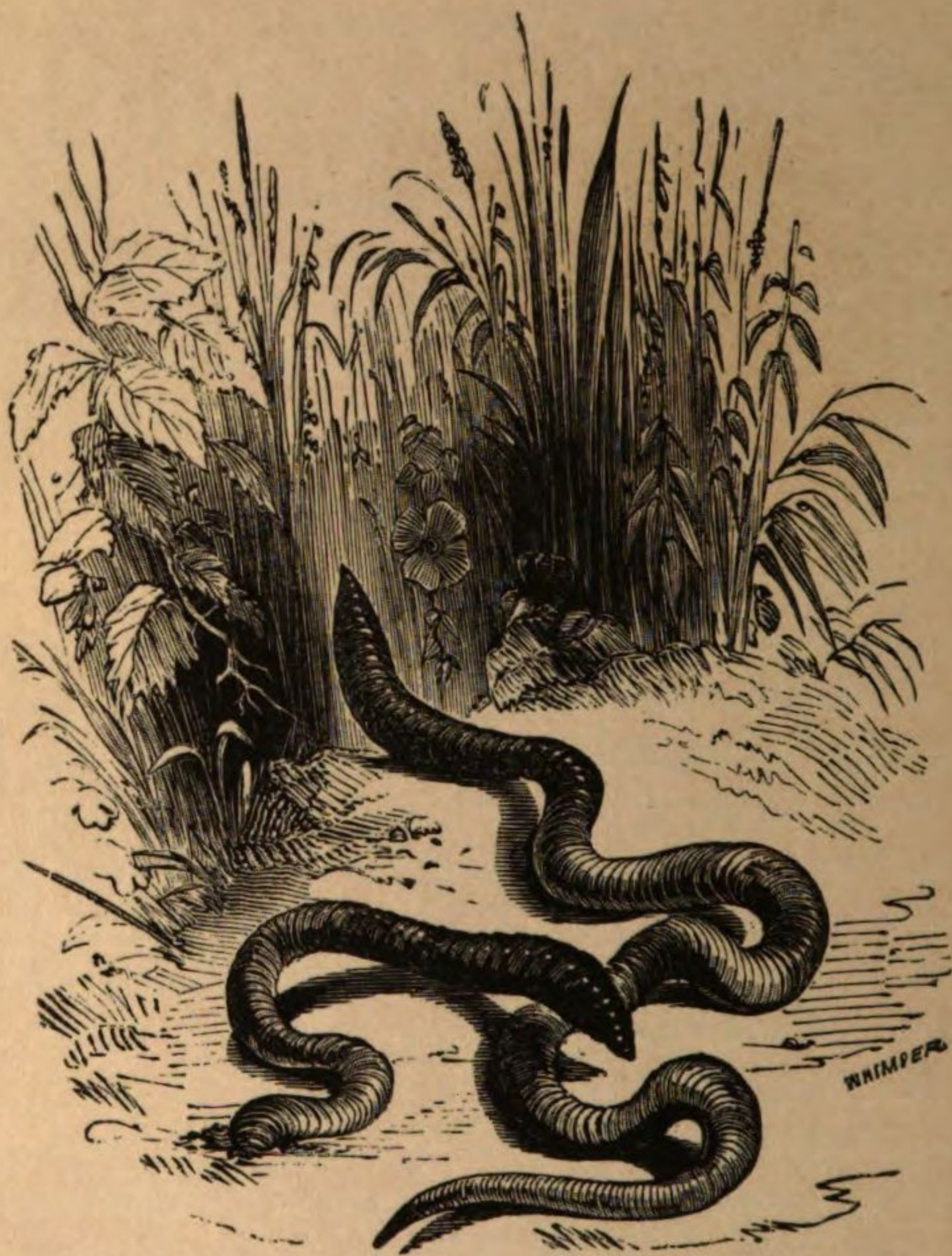
There is no species of insects so troublesome to man as the gnat. Others give occasional annoyance, like the wasp ; but the gnats thirst for human blood, and follow us in companies with the most persevering constancy, till they have succeeded in satiating their desires. In many marshy places in our country they swarm in myriads. There, the legs and arms of individuals are swelled to an enormous size, by the bitings of these voracious and insolent insects. In many other countries they are much more troublesome than in ours.

There is something very singular in the trunk of the gnat, or that instrument with which it is provided, and by which it inflicts such pain on others and obtains so much gratification for itself. This instrument is a kind of sheath, which contains several *piercers*. These issue at the pleasure of the insect from a very narrow

aperture. They are darted in a moment into the flesh of the object on which it lights. Gnats are careful in the choice of the particular place on the skin where they inflict the wound. It will try several before it sends out its *cruel piercers*. The place must have two properties: first, it must be easily pierced; and, secondly, there must be a vessel underneath containing as much blood as it may have occasion to suck, to satisfy its craving desires. How mysterious the instinct of this little adversary, in being able to make, and that speedily and correctly, a suitable selection. Would to God that human beings were as wise in applying to those genuine and divine sources, where alone the soul can obtain those supplies suited to the perfection and happiness of its immortal nature!

The wings of a gnat are a very curious structure, and worthy of attentive observation. By a close examination it is found that these wings are covered with what seems at first a beautifully coloured powder. By the help of the microscope, this powder consists of regularly organized bodies resembling scales and feathers. Though they are bestowed much more sparingly than upon the butterfly, yet they are arranged with the utmost regularity.

Those who are zealous about trifles while they neglect the interest of the soul, are said to "strain at a gnat and swallow a camel."



WORMS.

WORMS.

רִמָּה, RIMMAH. *Shooting out.*

JOB, VII. 5.—“*My flesh is clothed with worms and clods of dust ; my skin is broken and become loathsome.*”

It seems, from this affecting account which Job gives of himself, that his distemper was owing to a collection of worms nestling in his flesh and skin. Alas ! how numerous and loathsome those maladies to which human beings are exposed in this vale of tears.

The more we descend the scale of animated nature, the more we are astonished at the teeming, countless myriads of living creatures of the smaller form. As we ascend the scale the number of each kind diminishes, but as we descend each kind increases, so that all attempts at calculation are in vain.

Worms are creeping animals ; infinite in number, and almost in kinds.

The scientific name of worms is *vermes*. By some, this immense and innumerable family has been classified under *five* orders ; *one hundred* and *eighteen* genera ; and *four thousand* and *thirty-six* species. Who can think of this immense family without wonder ! What must be the knowledge of that God who has a distinct acquaintance with every living creature however despicable, loathsome, or minute !

In modern science, there is one class of worms called

entozoa, and another *radiata*. The *entozoa* have generally a lengthened, serpentine form ; the *radiata* are circular and depressed. The *entozoa* are small, white, naked, soft animals, found only in the bodies of other animals. The *radiata* are found creeping at the bottom of the sea, or floating in myriads on the waves. The *infusoria* abound wherever there is moisture on this earth, whether exposed to the atmosphere, as in rivers, lakes, and the ocean, or shut up in the bodies of animals or plants.

In Scripture there is particular mention of those worms which breed in putrefied bodies, and which belong to the class *entozoa*. These worms have neither an external nor internal skeleton. They have nothing bearing any resemblance to bones. Their outer covering is naked, smooth, and elastic. They have much langour, their body is considerably lengthened, and their internal structure exceedingly simple. What renders the consideration of this class of animals singularly interesting is, the great variety of their form, the obscure and even hidden origin of their existence and production, and the appalling ravages they commit upon the bodies of human beings and other inferior animals.

In the Bible men are compared to worms, to denote their earthliness, their meanness, their weakness, and liability to corruption. (Job, xxv. 6.) "How much less man that is a worm, and the son of man who is but a worm !"



FLIES.

FLIES.

עֶרֶב, OREB. *A mingler or mixer.*

EXOD. VIII. 20.—“*If thou wilt not let my people go, behold, I will send swarms of flies upon thee, and upon thy servants, and upon thy people.*”

ACCORDING to the Linnæan arrangement of insects, flies belong to the order *neuroptera*, that is, insects having wings. Flies of this kind have four membranous, transparent, and naked wings. In consequence of the membranes crossing each other, the wings present the appearance of net-work. The tail of these insects have no sting, but in the males of many it is provided with two pincers.

 THE DRAGON-FLY.

THE dragon-fly is remarkable for its beauty. The colours are diversified and brilliant. They almost vie with the rainbow itself. There you see a rich display of green, blue, crimson, scarlet, and white. What our Saviour says of the colours of beautiful flowers, may be said with equal justice of these flies; “Solomon, in all his glory, was never arrayed like one of these.” (Matt. vi. 29.) The eyes of these insects have a pe-

culiar brightness, and nothing can exceed the elegance of their wings as to expansion and texture. But they are as voracious as they are comely. We find in them, what is often witnessed in other animals, a union of marked beauty with marked fierceness and voracity. The dragon-fly is a devourer, the terror and destroyer of all kinds of its fellow-insects. Hence the word *dragon* which is attached to its name.

The parent deposits the eggs upon the surface of the water. They sink into the bottom, where in due time they are hatched. From the eggs proceed the young flies in the state of *larvæ*, when they continue for a season the active inhabitants of the waters, where they discover as much rapacity and cruelty as in the more mature period of their being.

THE DRAGON-FLY.

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